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NIHILISM AND THE USE OF DRUGS

Some pointed and pertinent sayings upon the use of medicines of a great American physician, with just a few words of friendly criticism

BEFORE the Medical Society of New York, Abraham Jacobi delivered an address with the above title. The reader will find it published in *The New York State Journal of Medicine* for February. Had we the space we should publish this address in full, but must content ourselves with the following notes from it:

"The question as to the value of drugs in the treatment of the sick has been recently answered contradictorily by flippant arrogance and by men of honorable ambition and great genius." Founded on the French school of pathology, the Vienna school of medicine was established seventy years ago by Rokitsansky, who claimed that pathological anatomy was the essence and sum total of medicine, and Skoda, who cared for the physical diagnosis of an organic anomaly but not for the patient. It was all care, but no cure was seriously tried. In Vienna the ideal patient was he who was satisfied with being auscultated and percussed by Skoda and autopsied by Rokitsansky.

The callously scientific atmosphere of Vienna spread far and wide. Dietl in 1851 said: "Our practical work does not compare with the amount of our knowledge. Our ancestors laid much stress upon their success in the treatment of the sick, we on

the results of our investigations. Our tendency is purely scientific. The physician should be judged by the extent of his knowledge and not by the extent of his cures. So long as there are successful physicians, so long are there no scientific physicians. Our power is in knowledge, not in deeds.

Under the influence of this icy atmosphere Oliver Wendell Holmes made his outbreak, which has since been repeated and echoed far and wide. Holmes was not a pharmacologist or a practitioner of medicine. Many have repeated the quotation, believing they thus ranked with Holmes by imitating the grave mistakes of his scurrilous and sarcastic mood, and with Astley Cooper, who is quoted by Holmes on account of his remark that more harm than good is done by medication. "If he be correct, the only and the simple thing to be done by me and by you is to omit the harm and do all the good we can, and are expected to do, by medication and otherwise." However, Holmes also expressed himself as follows: "It is not of the slightest interest to the patient to know whether three or three and a quarter cubic inches of his lungs are hepatized. He wants something to relieve his pain, to mitigate his anguish or dyspnea or bring back motion and sensibility to the dead limb."

Dr. Jacobi then proceeds to discuss Osler's most recent outbreak, which led *The Evening Post* to say of it: "Here we have three trump cards placed squarely in the hands of the barefoot, sunshine, barley-water and other cures, the new-thought health-givers, and the sufferers from various forms of religious mania." Dr. Jacobi says that what he read in Osler's crisp sentences was: "1. Be critical of the pharmacopeia as of everything else. 2. He is the best doctor who knows the worth and the worthlessness of medicine. 3. Study your fellow men and fellow women, and learn to serve them. Therapy means service." He adds, "I wish he had said that."

Dr. Jacobi goes on to say a good word for polypharmacy, objecting to the dictum that compound prescriptions are rarely desirable. He says: "The inexperienced and lazy should rather be admonished to learn how to find indications, and how to write a compound prescription when it is demanded, after his college has, like some others, neglected its duty to teach him. He should know the indications for the selections of drugs, as he is expected to know the rules for ordering diet, water, electricity, heat, cold and massage, aye, even the placebos of consolation and hope. Surely I prefer them to the prediction of an imminent fatal termination, according to the dictates of our aggressively brilliant Richard (Cabot) the Lion-hearted of a neighboring state. Unless the practitioner knows and does all that, he drives his patients to the manufacturer, the proprietary-medicine vendor, the Christian scientist and the rest of the quacks."

In the discussion of this topic he shows his own practical ignorance of precise medication. For instance he says: "There is no ground for the pedantic demand that two medicines with similar action should not be prescribed together. Even though all your pharmacists were of perfect knowledge and accuracy, on the shelves of the very best of them drugs are liable to lose their efficacy. That is why I recommend and frequently practise the combination of such drugs as digitalis, strophanthus and adonis,

or of the solid extract of digitalis and sparteine sulphate or of caffeine." Here Dr. Jacobi is speaking from a galenic standpoint, the one with which he is familiar. If each of three heart tonics has deteriorated to an unknown degree, he mixes the three together, instead of selecting the one he wishes and giving it in unspoiled, accurate condition. Apparently he does not appreciate the difference in the indications between digitalis and strophanthus, adonis, sparteine or caffeine. Those to whom the uses of the active principles have become familiar could hardly make such a mistake. His idea of the suggestion to give but one drug is that its advocates mean but one drug for a disease. The idea of giving a single drug to meet a single indication seems to have entirely escaped him. We may give any number of drugs at one time, if they can be so administered as not to interfere with each other, provided there is an indication present for each of the drugs given. We do not give five different drugs for malaria, but we may give five different drugs to meet five different indications occurring at the same time in the same case.

This illustrates what we have already called attention to, and that is, the difficulty of a physician occupying one plane of thought comprehending those who occupy another.

His next point is as to the fallacy of relying upon expectancy in such cases as offer a legitimate opportunity for efficacious intervention on the part of the physician. A ten months' baby showed evidences of spastic encephalitis. Two justly famous specialists suggested as treatment: "Let me see her again in six months." Jacobi says: "We stopped this expectant treatment. She was presented again after a regular iodide administration, and systematic bathing and passive movement and scientific massage—markedly improved within six weeks." "Expectant treatment! Verily, I tell you it is malpractice, which should be punished on account of neglecting what nature and sound therapeutics furnish. Expectant treatment is no treatment. It is a sin of omission

which not infrequently rises to the dignity of a crime."

His remarks on expectant treatment in advanced heart disease, in diphtheria and in rheumatism, are to the point. "How many cases of pneumonia have I saved in 54 years? You know I cannot tell, for I am not aware of how many would have got well without me. But when the feeble and arrhythmic pulse-beats rise in undue proportion to the number of respirations at an early date, you may feel sure the heart will give out before it is time for either crisis or lysis. Expectant treatment means neglect, and loses the game. These endangered hearts demand help. We are told often that no opiates must be given in pneumonia. Why not, when sleeplessness and exhaustion are threatened by an incessant cough? A single dose will provide a few hours' sleep that may save the life. In other cases drugs are positively life-saving, as in pneumonia of the second or third day with vast infiltration, cyanosis, beginning edema, dilatation of right auricle and ventricle far beyond the right margin of the sternum. With or without venesection you may save your patient by big doses of a drug. Nihilism or drugs; "you have your choice and your responsibility."

"Which, as a general rule, are the doses of medicine? Nothing is easier than to be misguided. Minimum and maximum doses are forced upon you in textbooks and pharmacopeias with refreshing coolness. Hundreds of times I have been called up by a druggist who informs me he has been told that the dose of sparteine is one-quarter of a grain. I replied, "That may be the dose of the man who is to be drugged with a placebo, but my patient requires his one-half or one-grain dose six or eight times a day. The average dose of fluid extract of digitalis is set down as one minim; those cases which require ten may get well with ten, but surely die with one."

"Dosage depends upon sex, age, body-weight, the stage of sickness or convalescence, high or low temperature, the condition of the absorbing tissues, the locality of application, the amount of blood circulating

in the vessels, the presence or absence of sepsis."

"Why is confidence in drugs so easily shaken?" Originally their effect was only known empirically. Digitalis had been removed from the pharmacopeia. Whithering restored it. The action of a drug, active or indifferent, is rarely amenable to such tests as of poisons at an autopsy. The effect of the drug as distinguished from that of the disease is difficult to make out. Still, many old drugs retain their place. Male fern has not lost its effect in two thousand years. "The large number of alkaloids renders drug treatment more positive and easier." The numerous cardiac and arterial stimulants, and the artery dilators which relieve the heart, the nitrites, iodides and aconite, have made us more sure of our footing and our patients more comfortable and safer. Antiseptics have rendered surgical antisepsis and asepsis possible, and the anesthetics cleared the air of the wails of millions of human beings. Old remedies have expanded their efficiency. Sero- and organotherapy have not fulfilled all expectations, because we expected too much. The German universities, Ehrlich's state institution, and the great manufacturers of all countries have contributed to increase our knowledge of drugs.

Dr. Jacobi personally looked over the register of a large New York drugstore. Of one hundred prescriptions of doctors in good standing, seventy contained nostrums from all countries.

He says, that during twenty years he has employed guaiacol in at least five thousand cases of tuberculosis. "What I am getting more sure of from year to year and have published repeatedly, is its reliability, no matter whether it is caused by its beneficent action on digestion, or what I believe to be its direct influence on a probable toxin formed by the tubercle bacillus."

In regard to the assertion that the older a doctor gets, the less medicine he will give, Dr. Jacobi suggests that some old doctors are becoming senile. "When you meet an old doctor who tells you he gives no drug, or a young one, who was born old, who uses

no cold water, no massage, on account of their alleged uselessness, he belongs to the class which remained in the rear, away from the battlefield of the army of explorers and fighters, or that unlucky class whose brain was first in falling victim to insidious atheromatosis. We are all human and subject to the laws of nature, which is indifferent to whether she preserves full manhood in one and makes an object of pity of the other. They say we are wonderfully and fearfully made. Some wonderfully and some fearfully."

"Nihilism is as conceited as it is impotent." In '76 Bartholow said: "He who despises his art can never become a great artist. Good practitioners are always found to be men entertaining the greatest confidence in the powers of medicine."

"Medicine is more than pure science; it is science in the service of mankind."

You get more from your enemies than from your friends. The more they hate you the more they advertise you.
—William Jennings Bryan

THE A. M. A. MEETING

The next annual meeting of the American Medical Association will be held in Chicago, June 2 to 5. We hope that many readers of *CLINICAL MEDICINE* will be present. Chicago is the most available for a large meeting of this kind of any city in the country, and the attendance will undoubtedly be very large. In behalf of at least a part of the profession of Chicago we of "the editorial cabinet" want to bid all who may come a hearty welcome.

The arrangements which are being made for the entertainment of visiting physicians are, we understand, very elaborate. Not only will there be the meetings of the various sections of the Association and the opportunity to hear many valuable and entertaining papers by eminent medical men, but there will be side attractions in the way of clinics at all the hospitals, excursions in and about our city, musical and social entertainments, and many other things which should make this meeting a memorable one.

Chicago can not claim to be a very beautiful city, but it is the "nerve center" of the Continent and radiates energy and optimism to all corners, and it has its beauty-spots as well as its points of interest. Every visitor to Chicago is expected to visit the Stockyards, Marshall Field & Co.'s "biggest store in the world," and the University of Chicago. But quite as pleasant for most of us is a spin through the North-Shore parks and suburbs—and we shall try to arrange for the pleasure of our friends.

CLINICAL MEDICINE and The Abbott Alkaloidal Company will keep open house. We want to see as many of you as possible at our new laboratory. We are proud of it. Everything here will be wide open, as always, so that you can see just what we are doing and how we do it. A visit to Chicago without a visit to the "home of *THE CLINIC*" is something that no reader of *CLINICAL MEDICINE* can be guilty of, we are sure, and we want to assure you right now of a hearty Chicago welcome. Come early and stay late.

If we can be of any service to you, before you come or after you arrive—we are yours to command. If you would like for us to engage rooms for you at any hotel or make any arrangements for your comfort while you are here, let us know safely in advance and we will try to "fix things" to your satisfaction. If you desire hotel reservations, advise us how much you want to pay, whether you want a room with or without bath, and whether you wish to be near the meetings of the Association. Give us all the details and, if possible, we will do the rest.

Ravenswood is readily accessible from the central portion of the city. The easiest way to reach us is by the Northwestern Elevated. Trains may be taken anywhere on the Elevated Loop in the heart of the city. Anyone can direct you to it. Take the cars marked "Ravenswood," in large letters on the front of every train, and get off at Ravenswood station. We are out about seven miles from the heart of the city, a thirty-minutes' ride. From the Ravenswood station of the Elevated it is three blocks north to our laboratory.

We shall try to make it pleasant for our friends, and we shall feel hurt indeed if *you*, Doctor, come to Chicago and fail to pay us a visit. Bring your medical friends out with you, and bring your wife, of course. We want everyone to see what he have and what we are doing. We have no secrets from the medical profession.

Don't let us miss this opportunity for a better acquaintance. Come to Chicago and to Ravenswood!

Learn from your mistakes, but don't cry over them.
We best redeem the past by forgetting it.

—Elbert Hubbard

TROUBLES AND HOW TO TAKE THEM

A stately ship was sailing over a summer sea, when suddenly a hurricane swooped down upon her. The captain saw it coming, turned pale, and called to the helmsman: "Hard up!" The mate yelled: "Hard down!" so imperatively that the helmsman obeyed him and not his superior officer. By so doing he threw the bows of the ship up into the wind, to face the approaching tempest, that is, the strongest part of the vessel. Had he obeyed the captain, he would have turned the weaker part, the stern, toward the approaching storm and ran before it.

This fairly illustrates two ways of taking trouble; one, bravely facing it; the other, running away from it. However fast we may run, the trouble is sure to follow and overtake us, and it is ten times worse from the fact of our having run from it. On the other hand, how often does it happen in our lives that when a threatened disaster looms over our heads, if we turn and bravely face it, the clouds dissipate, the storm subsides, and we find that after all there was not so much in it as we apprehended. Sometimes it is not a very great matter, but we hear of some physician—colleague, speaking ill of us. It is evident that something has disgruntled him. If we wish the trouble to grow and increase, we keep away from the man, and supply some tart comment on his asserted statements. The

trouble grows thereby and a definite rupture is the result.

Instead of this let us go frankly to our friend, place the case before him, and find out what he actually did say, which is never just what he had been charged with saying. Then see why he should have said anything to our discredit, whether we deserved it. May be not, but in any event when we have made amends for any wrong of which we were actually guilty, we are certain to find the other man disposed to meet us half way. The trouble has been reduced to its smallest proportions, and mutual friendship remains as a valuable asset, instead of a certain and bitter enmity which results from the other way of dealing.

The same thing holds good with difficulties of every nature. A brave, honest, straightforward course dissipates most of them; and those that do not subside before such facing are better met and contended with than if we had turned tail. All men hate a coward. Every man instinctively likes and admires courage. Courage is the almost necessary attendant upon innocence, and men know this; so that it prepossesses everybody in one's favor, that he had acted in the manner suggested.

Nevertheless, meeting difficulties with courage does not mean that you are to go about with a chip on your shoulder, ready to take offense and seeking quarrels, more than half way. The truest courage is often seen in ignoring attacks that are made. The most effective reply that can be made is generally silence. No matter how bitterly an enemy may assail your reputation, if you keep still, all sensible, fair-minded men are ready to say that you have your side of the question when it suits you to declare it; and the more venomous is the opposition to you, the more suspicious will they be of the motives of the man who gives utterance to it, and the less disposed to give credence to his attacks. Animosity blunts its own spear, as it is incompatible with the calm, judicial frame of mind which seeks to find the truth, the whole truth and nothing but the truth. These are old sayings and commonplace. Everyone of us knows their truth. Never-

theless it seems necessary that these old truths should be resaid constantly, in new words, in new ways, to keep us from forgetting them.

Trouble has a trick of coming
 Butt end first;
 Viewed approaching then you've seen it
 At its worst.
 Once surmounted straight it waxes
 Ever small,
 And it tapers till there's nothing
 Left at all!
 So, whene'er a difficulty
 May impend,
 Just remember you are facing
 The butt end;
 And that looking back upon it,
 Like as not,
 You will marvel at beholding
 Just a dot!

The loudest cries of hard luck come from those who have destroyed their bodies with drink, their reputations with disgrace and their minds with want.

—Gilhooley

LOCO WEEDS

The Department of Agriculture has issued an interesting bulletin giving the results of investigations of the loco weeds. It was found that horses, sheep and cattle were poisoned by the *aragallus Lamberti*, and horses alone by *astragalus mollissimus*. The symptoms described by stockmen were corroborated; being the lowered head, rough coat, slow, staggering gait, lack of muscular coordination, paresis, generally diseased nervous system, and in the latter stages of the disease, extreme emaciation. The principal pathologic changes were pronounced anemia, diseased stomach-walls, in acute cases congestion, in chronic cases ulcer. Locoed cattle generally have ulcers in the fourth stomach. There is an excess of fluid in the various cavities of the body, especially in the epidural space of the spinal canal. Here the effusion is organized into a gelatinous mass. In locoed females the ovaries are found diseased.

In regard to remedies: The weeds may be extirpated in fenced pastures, especially *astragalus* which appears in small patches. There seems no way of ridding the ranges of these weeds. Locoed cattle could generally be cured by strychnine, horses by arsenic.

The animals must not be allowed to eat the loco weed, they should be given nutritious food, and laxatives to correct the universal constipation. Magnesium sulphate may serve to some extent as an antidote. Immunity is not secured, the poisoning coming in a slow, cumulative manner.

The laboratory investigations made in connection with this subject resulted in the discovery that the inorganic constituents, especially barium, were responsible for the toxic action. There is a close analogy between the clinical symptoms and pathologic findings in barium poisoning, and those resulting from feeding to animals extracts of these plants. The sulphates, especially magnesium sulphate, form an insoluble barium sulphate and hence act as chemical antidotes. The loco plant proved harmless when grown on certain soils, which contain no barium. Also in drying certain loco plants the barium apparently was rendered insoluble in water, but could be extracted by digestion with the digestive ferments.

CONVALLARIA: THE GOOD AND THE STALE

Lenneker reports his conclusions from a very extensive and successful experience with convallaria extending over five years. He employed this drug in all heart affections, excepting fatty degeneration. In the latter convallaria proved injurious. Convallaria is one of the remedies giving tone to the stomach, increasing appetite and exerting a tonic effect on the intestinal mucosa, increasing the action of the bowels in many. He quotes one case of cardiac disease, from the use of tobacco, in which digitalis had failed to give relief, although pushed. He prescribed convallaria and *nux vomica* with excellent effect. The use of the two remedies at once unfortunately vitiates his conclusions.

The principal obstacle to the study of all these succedanea to digitalis is the difficulty of getting the preparations in good quality. Digitalis is so much used by the medical profession that there is a constant replacing of the druggist's stock by new. The things

that are not so much used are likely to get stale, and if they are rarely called for, the druggist naturally will not take the same interest in renewing his stock and keeping it up to date; and so when anybody wants to experiment with these odd and unusual preparations he is not so likely to get a good one as he is if he uses digitalis. This gives him a decided preference for digitalis over all of the others and prevents an absolutely fair comparison of these agents.

Unfortunately, for this and for other causes the exact place of each of the various heart-tonics has never been established, and we still call all of them "heart-tonics" without making that nice differentiation between their effects which is necessary to make an absolutely scientific selection when we attempt to apply them in practice.

He that abstains
To help the rolling wheels of this great world,
Glutting his idle sense, lives a lost life,
Shameful and vain. Existing for himself,
Self-concentrated, serving self alone,
No part hath he in aught.

—Bhagavad-Gita

SUCCESS AND "THE SQUARE DEAL"

How about the other fellow? While you are winning the patient, the money and the reputation, what is the effect upon the other man from whom you win these things? This question is less complicated in reality than it is in theory.

Theoretically, humanity divides over two great principles: One is the basal principle of all life, that which was so graphically depicted by Darwin, that which everyone of us grasps the meaning of at once, in the phrase, "the struggle for existence." According to this theory society is a vast circus, in which every man is armed against every other man, the struggle being carried on simply under certain rules, and the most successful man being he who can obtain the greatest advantage by coming as close as possible to these rules without actually breaking them in such a manner as to bring down retribution upon his head. This is the selfish principle embodied in the axiom

that a man should get and hold all he can. It is the law of the strong, disregarding the rights of the weak.

The other great principle which constantly combats this is the altruistic one. It is the rebellion against the hardness and cruelty, against the selfish principle, which has been preached to humanity by a constant succession of ethical religious teachers from the beginning of time. While Jesus was the greatest of these, and brought the altruistic principle to its greatest perfection, he was but one of a succession. Where could his system be more beautifully summed than in the dying words of Buddha, "Be kind to all that live."

Society is held together, and progress in civilization is ensured, by the balance between these two principles. If the selfish principle prevails, society falls to pieces and becomes nothing but a horde of lawless, ravaging wild animals. If the altruistic principle is pushed too far, ambition fails and society is reduced to the condition of the Indians of Central America, colonized about their churches, where the priest did all the thinking for them, and the people were reduced to a set of lazy, worthless, unambitious weaklings.

Antagonism is certain. It is always present, and nevertheless in the last analysis there is no antagonism. For, as has been pointed out by Spencer and every great teacher of modern times, selfishness itself defeats its own object, unless altruism is in the ascendancy. The prosperity of every man in the community is enhanced by the prosperity of every other man. When the demands of the trusts become exorbitant, the power of the people to purchase is so diminished that the trusts' profits fall. Men of the Rockefeller type are reversions; they are devolutional. Their success is illusory, since they lay the ax at the root of their own fortunes. On the other hand, men like Agassiz, who "have no time to make money," win thereby a greater success than could possibly have come to them if they had "taken time to make money."

In truth, the hustling which we advocate is of a different nature. How far any phy-

sician can claim an excellence which he doubtfully possesses, how far he is justified in doing this, depends upon the extent to which he can make good. If he confidently asserts his ability to manage a case, it is then up to him to go home and study and make himself proficient so that success will follow. Without this, boasting brings with it disaster instead of success. The increased proficiency which study, thought and experiment bring to one physician also does not do harm to his competitors, but on the contrary, good, for they also are thereby stimulated by necessity to go and do likewise. The result will be that not only the man who starts upon this process, but everyone within his circle of influence must do the same; and the entire professional tone of that community of physicians is thereby elevated.

There is nothing unhealthy, nothing greedy, there is nothing selfish in the effort of a physician to better himself and to let the world know it—if the latter be done in a proper manner, and not so as to shock the moral sentiment of his fellows.

Here, too, a caution is necessary: Beware of sticking too closely to last year's ruts. Society grows or dies, but never stands still. The rules and restrictions that were invoked last year do not fit the present time. Here and there some strong man refuses to be bound by restrictions which have been outgrown. His rebellion shocks the sentiment of his professional fellows for a while; but others follow this example, we grow accustomed to the change, and it is admitted as justifiable.

There are certain moral restrictions which no man must transgress. There are other restrictions which do not contain the moral element, and in this field opinion and practice must necessarily differ. This is debatable ground. It always will be; and personal judgment is to guide each individual as to the attitude to be taken toward these matters. For instance, there is nothing immoral or reprehensible in a physician putting out a sign, with his name, upon his office; yet in Paris the profession is not permitted to do this. There was a time

when in the eastern cities professional sentiment was outraged by the appearance of a larger sign than usual; whereas in some parts of the country a physician could undoubtedly cover the entire front of his house with red and white squares, if he chose to do so. Curiously enough, the loudest outcry against the physician is likely to come from some transgression of these nonmoral restrictions, while gross immorality, drunkenness, lying, false witness, may be wholly overlooked or winked at.

The work you do, the words you speak
 Have space on some eternal page
 Whereon one time your eyes shall seek
 To sum your profit or your wage.
 Aye, he whose hands bear score and mark
 Of toil's long stress, or battle scars,
 Sends something out into the dark
 As lasting as the time old stars.
 —W. D. Nesbit

THE SLEEPING SICKNESS

The sleeping sickness of Africa has been traced to infection by a parasite transmitted through the tsetse fly, in whose body the parasite passes a portion of its life cycle. But whence did the fly get the parasite?

We are now informed that it obtains its unwelcome guest from the crocodile, and it is proposed to put a stop to the disease by exterminating the crocodiles. This is not a very difficult matter—just make crocodile skins an attractive article of trade, and the thing will be done.

The fashion for alligator-skin valises, bags, and other articles threatened a short time ago to exterminate the alligator in the south; and had it continued this would have been the result, this animal having become very scarce indeed in many places where it was formerly plentiful. It is somewhat more difficult to obtain the crocodile from the rivers of Africa, nevertheless he would be obtained, and that certainly, as soon as an attractive price was placed upon his head.

But here is the difficulty: Admitting that the fly in question is nourished by the blood of the crocodile, it does not follow that the crocodile is the only animal capable of

affording sustenance to this fly, and that the fly will not, if the alligator is exterminated, succeed in obtaining enough nutrition from other sources to enable her to continue her baneful work. (For, like the mosquito, and most if not all the other pests with which mankind is pestered, it is the female whose insistence in providing for herself and her offspring occasions this misery to men.)

Whence does the mosquito obtain the plasmodium causing malaria? It is evident that a portion of the life history of this parasite remains yet to be unfolded. Who is the individual who will win undying fame, and confer a priceless boon upon humanity, by showing whence the mosquito gets the parasite? It is just as likely to be some obscure American doctor—obscure, that is, in the sense that fame has not yet thrown the limelight upon him—as it is to be any of the more eminent foreign big-wigs.

A writer in the *Indian Lancet*, of January 6, said that out of a population of three hundred thousand people in Uganda, Africa, two hundred thousand had died of this disease, and twenty thousand more were suffering at that time. It is proposed to segregate the sick and apply the atoxyl to these persons. To save the rest of the population is pronounced a simple matter. It is only necessary to remove the people two miles inland. The tsetse fly, which carries the disease, breeds within fifteen or twenty yards of the edge of the water, and will follow people some hundreds of yards or a mile or so, but beyond that the fly-free area is found.

An important part of the work of prevention is clearing all vegetation from the landing places, and water holes are to be similarly treated. This is an essential part of the scheme, as the flies can only live where there is thick bush, as shade is essential to their existence. The landing places should be cleared of bush to the extreme limit necessary to insure immunity, and the area so treated is to be planted with low-growing plants. Some difficulties will undoubtedly exist after these precautions; the disease

may be endemic, or continue to exist in a dormant state in animals.

See that all the hours of the day are so full of interesting and healthful occupations that there is no chance for worry to stick its nose in.

—Luther H. Gulick

DIURETIC ACTION OF THE SULPHOCARBOLATES

Some time ago Dr. A. H. Simonton called our attention to the diuretic action of the sulphocarbates, which he asserted that he had noticed in his own case. In order to test the matter, we secured a sample of urine on Feb. 8, which was examined in our laboratory. Another sample from the same case was taken on Feb. 14, after the patient had taken four intestinal antiseptic (three sulphocarbates) tablets every two hours, from 7 a. m. to 7 p. m. on the preceding day.

The laboratory report is as follows: First sample: Specific gravity, 1027; amount passed in twenty-four hours, 37 ozs.; total solids in twenty-four hours, 989 grs.; acidity, 75.7 percent.; urea in twenty-four hours, 21 Gm. (normal 33); uric acid, 1.8 Gm. (normal 0.6); sodium chloride, 18.6 Gm. (normal 10.15); chlorine, 11.2 Gm. (normal 7.8); phosphoric acid, 2.53 (normal 3.16); sulphuric acid, 2.53 (normal 2.01); albumin, indican and sugar absent; bile present.

The sample taken Feb. 14, after taking the intestinal antiseptic tablets, gave the following results: Amount in twenty-four hours, 98 ozs.; specific gravity, 1020; total solids, 2156 grs.; total acidity, 40.7 percent.; total urea, 33 Gm.; total uric acid, 1.4 Gm.; total sodium chloride, 38 Gm.; total chlorine, 23 Gm.; total phosphoric acid, 3.82; total sulphuric acid, 5.58; albumin and sugar absent; bile and indican present.

This would indicate an enormous increase in the excretion of solids of the urine, and a still greater increase in the excretion of water. The presence of indican in the second sample is an anomaly. While the dose of the sulphocarbates was larger than would be likely to be taken by any average person, it must be remembered that the sub-

ject here was unusually large, his weight being considerably in excess of two hundred pounds (274 lbs.). We will ask our readers if they have noted any similar effects from the sulphocarbolates. If so, we should be glad indeed to receive reports on the subject.

To use what gifts I have as best I may,
To help some weaker brother where I can;
To be as blameless at the close of day
As when the duties of the day began.

To do without complaint what must be done,
To grant my rival all that may be just;
To win through kindness all that may be won,
To fight with knightly valor when I must.
—S. E. Kiser

SOUTHERN LANDS

Does the man who invests in real-estate without examining it take chances? We are of the opinion that he does not, but that on the contrary he is sure to be "stuck." We have repeatedly called the attention of readers of this journal to the unused agricultural resources of the south. We have no reason to modify the views there expressed, as to the openings for capital and labor in that section of the country. But we are very far from saying that everybody who invests money in real estate in the south is bound to make a good thing out of it. If you do not know anything about farming, or about land, or about the southern climate, you had better keep out.

Here is a case that has just come to our notice: Some parties secured a lot of cheap land in the south. Now, there is any amount of cheap land that can be purchased down there, from three to ten dollars an acre; and one would think that such land, bought at such a price and sold for thirty dollars an acre, would afford a profit which would satisfy any reasonable man. But all men are not reasonable; consequently the parties in the deal to which we are referring, bought for about ten cents an acre a stretch of bare, desolate, sandy land. On one section of this they put up what they called a "model farm," to show what could be done. By the addition of fertilizers to the value of forty dollars an acre they succeeded in

winning very creditable crops. This would go on for five or six years, at the end of which time no amount of fertilizing would do any good, and the land had to lie fallow a number of years. But during the five years of cropping, opportunity was afforded to present an exceedingly attractive picture to inexperienced purchasers. On the basis of this, most alluring pamphlets were gotten out, and many persons were induced to buy this land at thirty dollars an acre. The consequences can be foreseen. Mechanics and professional men, who knew absolutely nothing of farming, were induced to sell out their little property and invest the savings of a lifetime in this land, which was absolutely certain to prove worthless. It did prove worthless, and after a few years' vain attempts to get a return for the money and labor invested, the land was practically deserted, the total investment being a loss except to the promoters, who certainly made a good thing out of it.

There is no limit to the opportunities for buying and cultivating southern land, but don't go blind; use your common sense, and if you don't know anything about these things find somebody who does, but who is not interested in selling worthless land at extortionate prices. The railroads are generally to be trusted, as it is to their interest to build up population and production in their territory.

A STUDY OF SOLANINE

In *The Journal of Therapeutics and Dietetics* French calls in question the dosage of solanine. He quotes Waugh as stating that the first evidence of the full therapeutic action of solanine seems to be an "acid burning in the throat," which is followed if the dose is increased by oppression of the respiration. "These symptoms, therefore, should be taken as indications calling for either a reduction in quantity or frequency, or else the entire withdrawal of the drug."

Thrush, however, states that in administering this remedy for epilepsy, "in order to obtain satisfactory results the remedy must

be carried to its full constitutional effect, which is indicated by drowsiness or stupor, and then the dose may be reduced."

There is evidently here quite a diversity of views. As a general rule we advise that a remedy should be given until the first manifestations of toxic action are apparent, then the dose slightly reduced, believing that the full remedial effect of the drug is best obtained from doses just below those required to induce toxic action. It is becoming increasingly evident, however, that with many, if not all, drugs there is a decided antagonism between the effects of minute doses and those of maximum doses. According to Mays all drugs are probably stimulant in small doses and sedative in large doses.

Thus we have threefold dose-strengths from which to obtain the effects of a remedy, and it is a question not easy of solution as to which strength is preferable in any particular case. We have the stimulant effect from very minute doses, the full constitutional effect from the physiologic dose just below the toxic, and the sedative effect from the maximum dose, which may be stated as all that can be given to the patient without endangering his life.

Which of these dosages gives the best results in epilepsy? If medicine is ever reduced to a perfect science, we shall know beforehand the reply to this question. At present we are unable to give any other reply than that the physician must try for himself and find out. Thrush evidently looks for the sedative-dosage effect.

In the case of absorbent remedies, like the iodine compounds, it is easy to see that when we are desirous of obtaining the utmost beneficial action possible from the drug, it will come from a dose which is able to stimulate the absorbents to carry away morbid material and yet is not quite large enough to cause the destruction of healthy, normal tissue-cells. Here the physiologic dose, just below that which would give rise to toxic effects, is exactly the one which we try to obtain. This is further exemplified by the administration of mercury in the treatment of syphilis: we try to keep as close to the saliva-

tion-point as possible, without actually touching it, to secure the most permanent and rapid effect upon the disease.

But that this is a general rule, applicable to all medicines; it is another matter altogether. We may assume that it is, until experience has taught us better. It is a good general rule to go by in the administration of remedies; we holding ourselves ready at any time to modify this view when sufficient evidence has been adduced to justify us in doing so.

In this way we avoid the danger, which is by no means small, of losing the effect of a remedy by giving it in ineffective doses. Jacobi has recently shown that this applies to digitalis as a remedy in feeble conditions of the heart; and *The Critic and Guide* has recently described a case in which this venerable clinician saved the patient's life by increasing the dose of digitalis fluid extract from one minim to ten minims.

But the question of dosage, when we attempt to dose to effect, is decidedly difficult. It is a trifling matter if we simply read in our books that the "dose is so and so," and give it; leaving the patient to get better or worse, making no alteration in this dose unless some unpleasant symptoms tell us to lessen it. If in due time the desired results have not been demonstrated we usually drop that drug altogether and take up another one which promises better.

When the habit of dosing to effect has been formed, we begin with a minimum dose, one too small in any possibility to do harm, and by rapidly repeating the doses we soon ascertain how much our patient will stand, or how much is necessary to produce the effect we desire. This dose once established it is easy enough afterwards to arrange it for more convenient administration into three or four doses each day.

Solanine is too new a remedy in the treatment of epilepsy to permit any one of us to speak absolutely. Our impression is that it is best to begin with small doses and push them up until something happens, either until the beginning of toxic effects warns us to discontinue the dose, or until the effect upon the malady is such as we desire.

The few experiences of the writer have convinced him that the daily average dose for an epileptic is about one grain of this alkaloid. His opportunities for observations on the minute doses and the maximum doses have been too few to justify him in expressing an opinion. For these data we must look to the field. You gentlemen must not expect us to do everything.

One of the most striking differences between a cat and a lie is that a cat has only nine lives.

—Mark Twain

ACTION AND PROPERTIES OF APO-MORPHINE

In *The Medical Record* Fisk discusses the therapeutic value of apomorphine, reaching these conclusions:

"1. The effect is widely different when administered by the mouth than the hypodermatic effect.

"2. The average hypodermic dose is 1-10 of a grain.

"3. Given to children or debilitated subjects the possibility of depression should be remembered, and strychnine simultaneously administered.

"4. By the mouth it is useless as an emetic and of little value as a hypnotic, the effect being limited to its expectorant action. The average dult dose is 1-8 of a grain.

"5. It does not increase the effects of other narcotics.

"6. When used when there is an abundance of mucous secretion in the respiratory tract, it may flood the bronchial tubes and drown the patient in his own secretion.

"7. Always specify crystalline apomorphine hydrochloride. Morphine may be present if it is not thoroughly washed. Use the fresh preparation, but a greenish discoloration of tablet or solution does not necessarily contraindicate their use, if originally prepared from pure crystalline salts by a reliable drug firm."

To this we may add that the addition of a trace of hydrochloric acid completely removes the green discoloration. This is especially interesting in view of the pronounced opinion given by certain so-called medical authori-

ties, that under no circumstances should green apomorphine be employed. The verdict of those who have used this substance is unanimous, to the effect that no bad consequences follow the use of green apomorphine, nor is there any diminution or alteration in the therapeutic strength of the drug consequent upon the chemical change.

BERKELEY AND TAR-WATER

Bishop Berkeley is known to fame as the author of the theory of the nonexistence of matter, that fine-spun cobweb of the brain, which has mused the *dilettante* thinkers of generations. Even Huxley took up and defended this theory, but we have always felt that he did so more as a joke than seriously, just as the experienced boxer may drop his arms and laughingly ask his pupils to hit him. Huxley, as the master dialectician of the age, had met and conquered every adversary with such consummate ease that he could afford to indulge in a like pleasantry.

Nevertheless, Berkeley was in another respect the most practical observer of his age. He was the first to recognize the immense possibilities underlying the action of antiseptics, although they were perhaps not known as such at the time. He advocated tar-water, as a universal remedy and preventive against disease; and now we know why he found tar water efficacious, and that his observations upon the question were not meretricious.

The idea was far in advance of his age, and it took the world of medicine many a weary year to develop sufficiently to realize the importance of his observations. As a general, local and intestinal antiseptic, there is no question but that the beneficial effects which he attributed to tar-water were real and not imaginary.

We have better antiseptics today, and many an illustrious name has since been associated with their application since Lister opened the eyes of the profession to the importance of this principle. We should not neglect to give credit to the great bishop, however, and the brilliancy of his observations may be used as a set-off, to the credit of the

clergy, as against the superstitions with which they have encumbered and continue to encumber the art of medicine, and their general indorsement of quackery.

Rest is as important as work. Dreams must precede action. Concentrated art is not art, and the acquiring of facts is not growth.

—Luther H. Gulick

AN "EDITORIAL" BY RILEY

In lieu of an editorial on a subject cognate to that discussed therein we submit a poem by James Whitcomb Riley. It tells a story and points a moral. We heard one of Chicago's bright men recite this poem at a club dinner the other night and it has been running through our heads ever since. It's great—because it fits!

MY PHILOSOFY

I ain't, ner don't p'tend to be,
Much posted on philosophy,
But thar is times when, all alone,
I work out idees of my own.
And of these same there is a few
I'd like to jest refer to you—
Pervidin' that you don't object
To listen clos't and rickollect.

I allus argy that a man
Who does about the best he can
Is plenty good enough to suit
This lower mundane institute—
No matter ef his daily walk
Is subject fer his neighbor's talk,
And critic-minds of ev'ry whim
Jest all git up and go fer him!

I knowed a feller onc't that had
The yellor-janders mighty bad—
And each and ev'ry friend he'd meet
Would stop and give him some recet
Fer cuorin' of 'em. But he'd say
He kindo' thought they'd go away
Without no medicin', and boast
That he'd git well without one doste.

He kep' a-yellerin' on—and they
Perdictin' that he'd die some day
Before he knowed it. Tuk his bed,
The feller did, and lost his head
And wondered in his mind a spell—
Then rallied, and, at last, got well;
But ev'ry friend that said he'd die
Went back on him eternally!

It's natchurl enough, I guess,
When some gits more and some gits less,
Fer them-uns on the slimnest side
To claim it ain't a fare divide;

And I've knowed some to lay and wait,
And git up soon and set up late,
To ketch some feller they could hate
Fer goin' at a faster gait.

The signs is bad when folks commence
A-findin' fault with Providence,
And balkin' 'cause the earth don't shake
At ev'ry prancin' step they take.
No man is grate tel he can see
How less than little he would be
Ef stripped to self, and stark and bare
He hung his sign out anywhere.

My doctern is to lay aside
Contentions, and be satisfied:
Jest do your best, and praise er blame
That follers that, counts jest the same.
I've allus noticed grate success
Is mixed with troubles, more er less,
And it's the man who does the best
That gits more kicks than all the rest.

INJUSTICE AND HYPOCRISY

During the last few months we have been made the object of a series of vicious attacks. At first they were relatively mild, but as these failed in their purpose to do us harm they continued to grow in length and intensity. At first couched in relatively courteous language they rapidly went down the scale to the author's level, completely unmasking the character of the man who wrote them. Shrewdly conceived, laboriously worked out, cleverly written, the evident fruit of months of toil, they show through and through that they are begotten in a hatred so intense that the author cannot be fair, and would not if he could. His later articles are full of abusive epithets, innuendoes and insults. Facts are distorted or withheld, to meet his purposes, as he may think necessary. There is not admitted, fairly and ungarbled, one word of our side of the story. To destroy—that is the undercurrent of the whole series.

These attacks, as we already know, have reacted and will continue to react upon their perpetrators. The American doctor, the great overwhelming majority of him, believes in the square deal; when controversy degenerates into persecution, when the motives underlying such attacks are open to question and the element of fairness is conspicuous by its absence, he is not blind, nor will he long be silent. We have abun-

dant evidence that such is the case. Not only have we received many letters from readers of *CLINICAL MEDICINE*, but many from others whose only interest in us is a friendly one; and with hardly an exception the writers speak kindly of us and our work and in condemnation of the spirit and substance of the criticism in which we have been assailed.

Shall we answer? Yes. But possibly not as our enemies expect and desire. In our own good time and in the way that then seems wisest we shall speak. We reiterate again what we have so often said before, that we are giving, shall give, every one the square deal—even this man, our insidiously working enemy—and we expect, from the real men of the profession, to get, and are getting, the same “square deal” for ourselves.

The mills of God grind slowly
But they grind exceeding small.

Conscious of the desire to do only what is right, what is best for the doctor, what will help him most, we can afford to bide our time—and meanwhile we are going to keep right on working and growing—doing our level best.

THE STINGAREE

Along the Gulf Coast that species of ray known as the stingaree has an evil reputation. Intelligent, educated gentlemen stated to the writer that they would rather be bitten by a rattlesnake than stung by a stingaree; that in the latter case the result was a longer or shorter period of distress, followed usually, some say invariably, by death within a year. In one case a man had been stung by a stingaree, and after a long period of suffering a large mass of the tissue around the wound sloughed out.

Wood, in “Our Living World,” speaks of this as a popular superstition, declaring that there is nothing whatever in the idea. But there are a good many things which scientists of this class don’t know. The possession of a poison-bag with ducts leading to the fangs or sting is not after all essential to the production of a toxic wound. Possibly

some unknown microorganism may inhabit this weapon of the ray and be transmitted by it to the wound.

It would be an interesting experiment for the bacteriologist to make cultures from the fresh sting. The latter is an ugly weapon when removed from the animal, a flat-pointed needle, with small sharp points on both edges. Whether poisoned or not, it can inflict an exceedingly ugly wound.

If any of our readers living along the sea coast have made observations on wounds made by this animal, we shall be glad to hear from them.

On all occasions it is better to be a little more than tolerant, especially when a wiser and better man than ourselves thinks differently from us.

—Walter Savage Landor

THE MEDICAL CURRICULUM

Dr. Beates may not have rendered himself very popular with the medical colleges, but he evidently knows how to take care of himself and maintain his position.

At the recent Pittsburg conference, reported in *The Bulletin of the American Academy of Medicine*, Dr. Beates gives some remarkable information as to the variability of the medical curricula presented by various medical colleges. For instance, obstetrics in one college requires 460 hours for its proper teaching, while another college manages to render its students proficient in 52 hours. General surgery in one college requires 2221 hours, while another college accomplishes the same task in 78 hours. In the same colleges general medicine occupies respectively over 1900 and 78 hours. Pathology in one school requires 646 hours, in another 48. Anatomy takes 1248 hours in one college, 126 in another. Physiology varies from 750 to 56 hours, the latter in no less a school than the University of Virginia. Chemistry varies from 756 to 78 hours; bacteriology from 660 to 30 hours. Dr. Beates denominates a number of the specialties as the “neoplasms on the body curriculum.” He finds neurology varying from 327 hours down to 10; dermatology and syphilis from 447 to 10; laryngorhinology 432 to 16 hours; genitouri-

nary work from 480 hours to 4; medical jurisprudence from 775 hours to none. These figures are exceedingly suggestive.

HEMORRHAGE AND RICKETS

Wright showed that the alimentary canal of some persons seemed deficient in ability to absorb calcium salts. Therefore he advises calcium lactate given hypodermically for urgent cases of hemorrhage and in certain cases of rickets. He also has shown that probably the large calcium-content of cow's milk may cause abnormal tendency to coagulation, and in typhoid fever predispose to phlegmasia alba dolens. If any lesion of the endothelial lining of the vessel occur, the tendency may be diminished by moderate doses of citric acid.

It is further suggested that the calcium salts may be useful in certain cases of urticaria, especially in those who suffer from this malady after partaking of acid fruits, which contain oxalic or other vegetable acids. If there is already a deficiency of calcium salts, these acids dissolve and so remove from the body so much of them that urticaria and decreased coagulability of the blood results. The value of magnesium purges in urticaria probably lies in the fact that magnesium increases the coagulability of the blood.

A HOMEOPATHIC DECALOG

A writer in the November, 1907, issue of *The Medical Advance* gives the following homeopathic decalog, in which some of us may possibly find something useful.

One: Thou shalt have no other therapeutic guide before these commandments. (Respectfully referred to Simmons.)

Two: Thou shalt seek for the totality of morbid symptoms. (What is the matter with that?)

Three: Thou shalt search diligently the symptoms of drugs and patients. (Is that homeopathy? If so, count us among them.)

Four: Thou shalt watch drug-symptoms with disease-symptoms to find the nearest

similium. (Leave out the last part in regard to similium, and it is all right.)

Five: Thou shalt give the single remedy. (That suits us.)

Six: Thou shalt give the minimum dose. ("The smallest possible dose to obtain the desired results" has been our motto for many years.)

Seven: Thou shalt learn to wait. (Well, we are waiting, patiently, until the medical profession catches up, which seems pretty hard for it to do.)

Eight: Thou shalt not alternate medicines. (We have always felt that if the medicine was chosen properly, one was enough. If it is not the right one, it is one too many.)

Nine: Thou shalt not unwisely repeat. (The repetition of doses depends on the speed with which they take effect.)

Ten: Thou shalt require obedience to hygienic law. (Well, there is not one of us, be he homeopathic, eclectic, regular, or anything else, who does not cheerfully subscribe to this.)

On the whole it is a pretty good decalog. If any of our readers disagrees with us, let us see if he can construct a better one.

Good luck is science not yet classified; just as the supernatural is the natural not yet understood.

CACTUS

"The common idea is that cactus is *the* remedy for heart disease; and so it is if there is irritability of feebleness, the quick movement without strength. But its administration is not restricted to cases of heart disease. Given the quick movement without strength, it is the remedy in inflammation or functional disease. The influence of cactus seems to be wholly exerted on the sympathetic nervous system, and especially upon and through the cardiac substance. It does not seem to increase or depress innervation, is neither stimulant nor sedative, but rather influences a regular performance of functions. Its continued use improves the nutrition of the heart, thus permanently strengthening that organ. The direct indication for cactus is pain of a

constrictive character—as if the parts were bound with an iron band, whether it be in spasm of the heart-muscle or in menstrual nervous headache.”

The above paragraph is taken from Lloyd Brothers' "Dose-Book of Specific Medicine," just published by them. It is a fair illustration of the quiet, sensible, moderate tone used by Lloyd in speaking of the remedies which are put out by that firm. The "Dose-Book" we find exceedingly interesting. We would suggest to our readers that they will find in it many a useful hint to try in their practice. We presume that the "Dose-Book" would be sent to those requesting it of Lloyd Brothers, Cincinnati, Ohio. We make one more significant quotation: "Every jobber's stock in America is made up of fresh specific medicines. No bottle in any stock is older than 1907." Now, Doctor, when you send a prescription to your pharmacist, are you *always, invariably*, sure that the latter takes the precaution which so great a chemist as Lloyd finds necessary, that your prescription does not contain a single ingredient which is older than 1907? Possibly the reply to this question may enlighten you as to some of the disappointments you have experienced in the application of medicines.

The greatest social force in the world is the quickening influence of a high ideal. —Edward T. Devine

A PLEA FOR THERAPEUTICS

In *The Virginia Medical Semi-Monthly*, for February 7, Prof. Upshur makes a strong plea for the retention of therapeutics, by the state examining boards. The closing words of his paper are as follows:

"In conclusion, I plead for high ideals in the standard of therapeutics. No department of medicine can be studied which, by the acquirement of a thorough knowledge, will redound more fully in benefits to suffering humanity, broadening as it does the resources of the physician and enabling him to administer remedies too scientifically ever to grope and blunder. It will give greater confidence in his own powers for good, and

so impress the sense of right that the base counterfits are readily recognized and eliminated. So will the regular profession be redeemed from error, and firmly stand, established in truth and righteousness."

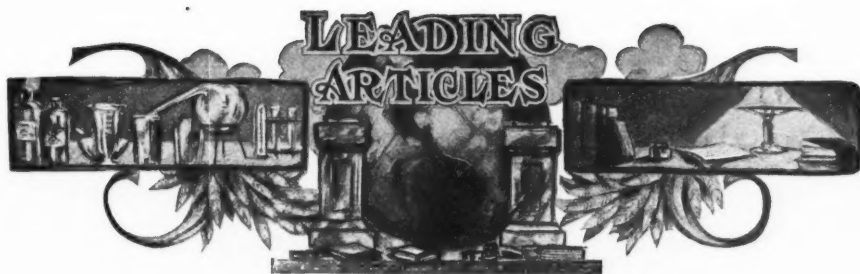
STROPHANTHIN

Folia Therapeutica contributes an interesting note on the intravenous injection of strophanthin. The dose is one milligram (gr. 1-67). Frankel, after its use in fifty cases, reported that within a few minutes the pulse became strong, and the cyanotic symptoms were relieved very rapidly. The injections gave rise to no pain, but in a few cases rigors and pyrexia followed. Mendel's experience in five cases was less encouraging. In one the improvement lasted two days, and in three others no effects at all were produced. Schonheim used strophanthin in eight cases; his conclusions were:

1. An intravenous injection should be given in cases of cardiac failure which do not yield to ordinary medical measures.
2. Strophanthin raises the blood-pressure, produces diuresis, relieves congestion, but does not influence the pulse-rate. These effects last a few days and if necessary the injections may then be repeated.
3. In some cases rigors, giddiness, vomiting and headache may follow the injection, but subsiding in a few hours.

Hedinger had fifteen patients. His conclusions were:

1. Strophanthin acts quickly and effectively in cases of circulatory failure, as evidenced by his last series of cases.
2. The undesirable sequelæ, pyrexia and rigors, are due to bacterial contamination of the solution.
3. The effect of the injections does not become less as they are persisted with, unless of course the condition of the patient deteriorates rapidly.
4. In doses of 1 milligram every twenty-four hours there is no fear of any toxic cumulative action.
5. The intravenous injection of strophanthin possesses advantages over the administration of digitalis by the mouth.



MULTIPLE PERSONALITY AND THE SUBCONSCIOUS

The subconscious life or personality scientifically explained, with a discussion of the double personality of the Rev. Thomas C. Hanna

By S. P. GOODHART, Ph. B. (Yale), M. D., New York City

A CURSORY glance through the annals of the various sciences reveals astonishing progress in the past century, but in no branch of scientific research have greater results been achieved than in that pertaining to the phenomena of the human mind.

Freed from the shackles of religious dogma, hand in hand with other departments of medical research, the study of the protean manifestations of the human mind has been carried on upon a broad and rational basis and in a liberal, enlightened spirit.

Since man has become conscious of his being the mysteries of life, particularly of mental life, have been a theme for his thought and speculation. The "coming and going" of man, the metamorphosis of matter, life and death, generation and decay, the bewildering phenomena of the normal and abnormal mind, human consciousness and self-consciousness, all of these have fascinated man's attention and stimulated his thought and imagination.

Early Ideas Concerning Mental Action

The early conceptions of mental life have for us but historical interest. The ancients knew nothing of the brain, much less of its elaborate structure; indeed, even its function

was but speculated upon. Hippocrates, that master-mind of ancient medicine, was the first to maintain and proclaim the brain the seat of the mind, the source of intelligence, of volition and bodily activity. The interdependence of mental processes and brain-function did not dawn upon the scientific mind until years after. The early Greeks regarded the brain as but a single organ, "for cooling the heart."

It remained for the methods of modern science to discover the facts and principles relating to the true functions of nerve-matter. Scientific research into the external aspect of gross nervous architecture having reached a high state of exactness, the stream of thought naturally turned into investigation of the nerve-elements, the minute cells within the brain; minute, indeed, until its wondrous and elaborate structure was revealed by the magnifying methods of the present day.

Not content with gross study, science has made an attempt, and indeed a highly successful one, to penetrate into the hidden laboratory of cellular life. The minute study of the brain-cells with their prolongations and nerve-fibers, technically known as *neurons*, and the associative connections and relations of *masses* of cells, has brought forth

a knowledge of nerve-structure heretofore hidden to research. Indeed a study of the finer architecture, the *minute anatomy*, of the brain together with what the "mind students," the modern psychologists and scientific alienists, have learned, forms an epoch in the progress of this fascinating domain of science.

Studies of Borderland Cases

Correlated with investigations into the strictly physical elements are the studies of observers of mental phenomena in certain so-called "borderland" cases of perverted mental function. Our knowledge of the activities of the normal mind has been largely obtained by a study of these individuals so often met with among the highly cultured and intelligent, a class in which so-called functional mental disorders are most frequently seen. Heretofore these sufferers have received but little attention and scant sympathy. It is of far-reaching import, indeed, that these manifold manifestations of mild mental changes, these "borderland" cases, occur among those of highly developed nervous organization. This is, however, not surprising when we consider that the evolution of psychic life has been gradual and through successive periods of evolution. Most complex, most highly organized in the scale, man is yet the most unstable and most easily affected by hurtful influences. As in development, so in decay; the process of degeneration affects first the most highly developed, the most delicately organized structures of the brain, hence those with the highest mental attainments are most easily disturbed. In certain forms of mental disease we see this process well illustrated, the process of deterioration beginning with the highest, the most esthetic qualities, those last to appear in the process of evolution.

Man and Lower Organisms

A comparative study of nervous structure in the lower animals and in that of the highest product of development, man, associated with observations accompanying psychic manifestations, has explained much in this vast *terra incognita* of nature. In the lower organisms we find simple structure,

simple function; with ascent in the scale structure becomes more complex, function more differentiated and specialized, and we observe in the brain of the higher vertebrates, reaching the highest complexity in man, large nervous centers of association working together in varied and astonishingly complex groupings.

The human brain really is composed of masses of nerve-cells, with concomitant psychic activity representing a series of centers and in a sense furnishing the anatomical basis of independent unities or of fragmentary personalities. According to what is known as the "retraction theory" of recent investigators the nerve-fiber in the brain has the power to contract and expand, thus at times "making," at others "breaking," the circuit of communication between the association-centers. Here is given the rational psychical basis for the "make-up" and "break-up" of individuality. The terms "subconscious" and "subliminal" have come to be used as signifying that part of human selfconsciousness that has become in a sense detached or submerged and lies beneath the surface of the waking consciousness, the working personality.

The study of subconscious life in man has proven of vital importance. Indeed the mechanism of consciousness itself is hidden within the depths of the subliminal self, and thither we must descend to understand certain phenomena of the human mind.

The Subconscious Self

The influences of this subconscious self or personality are of interest to the physician, the scientist, the theologian, the reformer and the criminologist. The operations of the subliminal self explain much that has until now been looked upon by many as in the realms of the mysterious, by some as belonging to the supernatural. From early times down to the present the mysteries of so-called supernatural phenomena have played an important role in the world's drama. Some of the great minds, past and present, have been impressed by those peculiar manifestations variously termed theosophy, trances, states, spiritualism, occultism, and what not.

After exposing the majority of these as charlatan, to the critical and observant it becomes evident that behind the various devices resorted to there still remain many unusual manifestations giving color to the idea that there must be some rational explanation for these phenomena. In the light of modern scientific investigation in this country and on the Continent these phenomena are recognized as manifestations of the subconscious self, possessed of knowledge unknown to the upper waking consciousness of the subject.

The revelation of "crystal-gazing" and "shell-hearing" as well as those of the "spirit medium" are all products of subconscious mental activity. In "crystal-gazing" and "shell-hearing" the subject gazes into a crystal or listens to the "roaring" within the shell; experiences, incidents, information, hidden to the upper consciousness, arise to the borderland of waking self and are visually or aurally projected into the crystal or shell. "Messages" from the "world of spirit" are in some instances received in the same way. "Spirit mediums," many of them sincere, have the power of self- or auto-hypnosis, thus bringing their own subconscious self and its "information" to the surface.

There is positive evidence of the co-existence of one or more "selves" in many individuals, and probably in all of us. Within the subliminal, or subconscious, self there may be buried memories, lost experiences, knowledge unknown to the upper self, at times reacting upon the upper consciousness, giving color to the deportment of the waking self, the active personality. The contents of the subconscious may rise to the surface of consciousness in part, or if emerging in its entirety, a quite new personality appears, supplanting for the time being the upper self, the latter in turn falling into the realms of the subliminal self. In hypnosis it is the subliminal self that rises to the surface and becomes for the time the dominating personality. The subconscious self is the more impressionable and suggestible. Thus two selves may exist within the same individual.

"Planchette writing," as it is called, is another means of showing the possible disassociation of human consciousness. By this means, in proper subjects, it may be shown that while the hand of the subject is registering impressions upon paper the attention of the upper consciousness is held by an entirely different operation and is totally oblivious of what the hand is registering. The experiments may be made so complex as to prove absolutely two independent streams of conscious activity within the same being.

The most striking and convincing evidence of the presence of two or more egos within the one individual is that afforded by cases of dual and multiple personality. In these persons one skull seems to cover two or more independent minds. They may differ widely in content of knowledge, judgment, emotions, and in esthetic feelings. The celebrated "Jekyll and Hyde" story and Hawthorne's remarkable tale, "Archibald Malmaison," doubtless originated in some observed cases of dual personality.

It was the writer's good fortune to have under his observation and experimental control, in conjunction with Doctor Boris Sidis, of Harvard, the most complete and remarkable instance of complete amnesia or loss of memory later developing dual personality that has been recorded in medical or lay literature. It is the first instance recorded where the loss of memory-content was absolute and complete, even to the obliteration of the fundamental experiences, the simplest memories of life. The experimental details and methods have been published in a recent work.* As the case so well illustrates subconscious phenomena, it will be outlined here.

The Case of the Rev. Thomas C. Hanna

The subject was the Rev. Thomas C. Hanna, a young Baptist clergyman of Plantsville, Conn. Mr. Hanna is a learned, highly cultured man of scholarly attainments and strong personality. While driving, on April 15, 1897, Mr. Hanna, stepping

*"Multiple Personality," Sidis and Goodhart, 1905.

from his carriage lost his foothold and fell to the ground head foremost. He was picked up in a state of unconsciousness. After several hours of effort by local physicians he opened his eyes and gazed upon what to him was a new world.

The young clergyman had apparently lost absolutely and completely every vestige of memory of his past life. He knew naught of himself, his environment was to him strange and bizarre. He was as an infant borne into a new world. He did not differentiate animate from inanimate objects; the world about him was but a chaos of sensations. Objects, distance, time, did not exist for him. He had to begin life apparently anew, the very simplest functions had to be explained; he did not know how to walk, could not interpret the sensation of hunger nor did he know how to satisfy his simplest wants.

However, he learned with most astonishing avidity. In reading and writing he began as a child. First he learned to print, and in this condition he was ambidextrous. In his normal, or primary, state he had been an excellent Greek, Latin, Hebrew and English scholar. His memory for newly acquired material was remarkably acute. The almost hyperacuity of his faculties was illustrated by the marvellous ease with which he learned to play several instruments with which in his primary, or normal, state he had not even been familiar. In a few weeks Mr. Hanna passed through stages that else represent years of development. The young clergyman's "new life," the secondary personality, began with the awakening after the injury. The primary life, the one representing the experiences and memories of the normal Mr. Hanna, ceased with the fall from the carriage; the secondary personality began with the awakening.

Alternation of the Two Personalities

By experimental methods of "tapping" the subconscious it was possible to prove that the primary life lay hidden within the regions of the subconscious. The dormant subconscious personality was stimulated and arose to the surface of waking consciousness.

The two personalities finally alternated, each dominating for the time being in turn the personality of Mr. Hanna. Mr. Hanna's skull for the time being covered two distinct personalities. Each was in a sense independent of the other and knew only indirectly of the other. Mr. Hanna of the secondary state was a rather awkward, reticent young fellow, struggling to acquire knowledge, his past an oblivion. The two selves knew each other only indirectly by information from others. The handwriting and emotional qualities, even the temperaments in some respects, differed widely.

The two egos alternated and were invariably separated by a varying interval of deep sleep. As may be imagined, many amusing and many more painful situations were experienced by the young clergyman during this remarkable period of his life. For example, relatives and friends that he knew only in the one "state" he would be quite indifferent to in the other unless he knew them in both "states." In short, the two personalities were strangers to each other. Eventually, by forcing more rapid alternations of the two states they both met for a moment upon the threshold of self-consciousness, were finally blended together, and united into the one normal Mr. Hanna. This case is the first one in recorded literature where the gap separating the two distinct personalities was bridged over by direct memory.

Mr. Hanna's First Awakening

The first awakening of Mr. Hanna to his former primary self is well described in the clergyman's own words, and is as follows:

"I awoke after a good night's sleep at about four o'clock with the full knowledge of the past life except what had occurred since the accident. The surprise was exceedingly great, to find one's self in bed in a typical New York home when the last memory was of driving over the country roads of Connecticut. Even this memory was not immediate, rather a general resemblance of being at home and at work. Fortunately the room-mate was recognized as my brother and being rudely awakened by

me he was challenged for an explanation. This being made hastily, I was cautioned to remain quiet while a "friend" was called. This friend proved to be one of the specialists. Questions and answers flew so fast that it was some time before I could realize the state of the case. I utterly refused to believe the story of the accident and of the following weeks, and took the whole for a huge joke. This was natural from the humor of the situation. The three persons by no means made a presentable appearance, yet all were apparently sincere, the doctor taking notes like a stenographer, the brother executing a war-dance in jubilation, and I racking my brains for some possible motive for such a practical joke. The doctor was then a stranger to me, so no confidence would be placed in him. The brother was continually bursting into fits of uncontrollable joy, the result of relief from so long a strain.

The Limit of Memory

"When questioned, I could recall events up to the time of my commencing to alight from the carriage. I told of having felt at the time an acute rheumatic pain in my knee which prevented its use. While attempting to relieve it by the other foot, the lap-robe became entangled and I swayed helplessly. This memory, then, harmonized with the statement of the others, and the conclusive proof was felt when a watch was seen to indicate 4:15 although daylight was appearing. I remembered well that at the date of my memorable drive daylight would not have come until much later than 4:15. This convinced me of the lapse of considerable time in accordance with the statements of the others.

"The physical sensation was of great weakness. There was a slight feeling of pain in the head, and my back felt weak. Otherwise I felt as well as usual.

"Before long, however, an uncontrollable drowsiness came, and after some attempts to keep awake, I was allowed to fall asleep. The feeling of sleepiness was at the first entirely within my control, but not realizing the necessity of remaining awake, a neces-

sity that was later impressed upon me by the specialists, and having partially yielded to this feeling of drowsiness, the will was powerless to respond to even the urgent request to resist sleep. The drowsiness was powerful, bringing a delicious sense of rest hardly suggested by ordinary sleep. Being awakened out of a heavy sleep later in the morning, I knew nothing of the experience of the early hours, but was again living and acting according to the second life. It was only at a later date that I could learn what had occurred during that half hour. The questions asked and the interest shown in regard to my condition, even while I was feeling as usual, aroused my curiosity and surprise.

"At the next awakening to the normal, or at least to the primary state, there was memory for what had occurred in the last primary state. As the room and house were different, it was evident to me that there had been another lapse of time, and the first inquiry was, "How long has it been this time?" The next time curiosity was greatly aroused because on coming into the secondary state, I found myself dressed and sitting in a chair, and with the comfortable feeling of a good breakfast eaten, and an uncomfortable feeling of pinholes in the flesh made by the doctor while I was falling asleep. I had no knowledge of the pain when the needles pierced the flesh, but felt a sharp pain on awakening. However, no information could be gained, and I was of the belief that I had fallen asleep, and during that time had been fed and dressed by others.

Resolutions in the Primary and in the Secondary States

"In the primary state I found myself making thoughtlessly a resolution that on again waking in the secondary state I would not be alarmed at the change; but of course at the next change there was no memory of the resolution and consequently distress was felt. While in the one state I was informed of my experience in the other, so that I knew in an indirect way the state of things. It was thus that in each state I came to a

determination to assist the scientists in effecting a cure. Yet as each resolution was not known to the other state, there was not the necessary harmony of action. One resolution was that while in the primary state an effort would be made by me to remain awake at all hazards, day and night, until a continuance in this state seemed probable. The other resolution made in the secondary state was to cling to the facts in that state and that life with a grip of steel, yet to allow the passing into what the doctors called the intermediary state, when they would be able to give me the facts of the other life while I was holding to the present also.

"The first mental struggle was during the very next primary state, which, through the doctors' earnest request and my own extraordinary effort, was already prolonged to three or four hours. All were assembled in the laboratory. The feeling of drowsiness had hitherto been resisted but was growing continually more heavy, especially during the quiet of the experimenting.

"In vain were these interesting proceedings watched by me, in vain were the efforts of all, even the needle points, which were not felt, yet were faintly known in the dim receding consciousness. Yet there was that determination to remain awake at all events, and the struggle continued in half-consciousness for a long time.

"Suddenly there was a glimpse of the secondary life; only a glimpse, it is true, yet a revelation of infinite wonder as being the first real insight into one state from the other. Instantly the thought came, what is the use of enduring this severe struggle when invited into that attractive life, the secondary state? This statement was not thus carefully formulated, but that was the impulse of the moment, the feeling was just to that effect. But saying mentally again, what is the use? there was a letting go, and the primary life was again lost.

"While in the last instant of the primary state, as has been said, there was a glimpse of the secondary state, yet there was in the secondary state no memory whatever of the primary, but just the old unshaken deter-

mination to carry out as far as possible the plan of the doctors. They had a full understanding of the peculiar mental state, and so everything was ready for the decisive battle.

The Decisive Battle

"It came in the same house in which the first awakening to the primary state had taken place. It was early evening, after a day of unusual activity and enjoyment, bringing great fatigue and drowsiness. Struggling against this I felt a severe pain in the head. There was a regret at having bound myself to such a resolution, yet a determination to stand by it at all hazards. There was every encouragement from the doctors, who were eagerly plying me with questions and insisting on facts of the experience of the other state. The persons and places of the primary life (learned by the doctors, by questioning friends, and myself in my different states) were mentioned and strongly impressed upon my mind. Especially those persons whom I knew in both states were referred to. I was still in the secondary state, but the other life dawned on me, and nothing but my will pertinaciously clung to the secondary state.

"Both states were dim and only the doctors' tiresome repetitions and persistent hammering on the reluctant mind made them gradually more real. I felt quite vexed at what seemed the obstinacy of the doctors, yet was coming more and more to feel the force of their statements. Yet even now only the first position was gained in the conflict, for while both lives were presented to the mind, where was the possibility of combining them? And had I now lived and felt each life? Yet how could one person live and feel both lives? Here was the critical point. But the doctors persisted they were both *my* lives, and indeed I knew each one was, though it is impossible to take two men and make them both into one.

"But the lives were constantly becoming more and more personal, until at last, by a deliberate, voluntary act, the two were seized and have both remained for half a

year to the present date, though for some time after the recovery it was difficult to dovetail together the detached portions of each life so as to present a continuous story."

A complete cure was subsequently effected and the Rev. Mr. Hanna completely restored to his former self and individuality. He has resumed his pastoral work and has remained in the full enjoyment of mental and physical health. Nothing has occurred to mar the complete blending of the two separate and distinct lives, unless it be the recollection of the apparent paradox.

Other cases of dual and multiple personality might be cited from literature, and some others have come under personal observation.

The entire subject of subconscious phenomena is most fascinating. The problems involved are of immense practical significance. To what extent are we at times responsible for our actions; to what degree is the criminologist to make the various "personalities" the factor in his conclusions? These and a multitude of other questions suggest themselves in contemplating the influences of the subconscious self upon our experiences and conduct.

CONCERNING THE DOCTOR'S FEE

Being number eight in a series of articles
"Concerning the Doctor Himself," dealing
with various matters of medical economics

By MAYNARD A. AUSTIN, M. D., Anderson, Indiana

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ONCE upon a time a worthy young man entered the practice of medicine.

He saw no reason why he could not become rich as well as great. He hung his sign so that it swung to the four winds of heaven, but soon he wondered at its unattractiveness.

His first caller was a book-agent who sold him a forty-volume system that contained all the knowledge of the medical world, presumably from the time of Adam, although history does not say that the latter used fig leaves for its poulticing properties. Again he was visited, this time by a committee of ladies from a prominent church seeking aid for the body surrounding divers souls in South Africa. He was good for one soul, of course. Their successor proved to be the colonel, he who marshalled the ward in election time, and being a patriot believing in the cause (?), the doctor gladly came to the relief of the party-treasury. His next visitor was a patient, who took the doctor's time and sampled of his medicine with only

a promise to pay in return. Next day brought the landlord; summer the ice-man; winter the coal-dealer; spring and fall the tailor; while daily the butcher, the baker and the grocer paid him their respects and separated him from his bank-account.

Surplus Lessens While Wisdom Grows

Thus each day the doctor's surplus lessened while his wisdom grew. A year of genteel starvation, then other years when even crusts and crumbs were hoarded, till at last the hoped-for time of peace and plenty came in sight.

The practice of medicine is certainly like a rainbow, its beautiful colors are matched in frequent times and places, yet the pot of gold is as far away in our manhood as our childish efforts found it in the long-ago.

The profession of medicine is losing much of the incentive and most of the reward which came to our fathers. We learn to be praised by a few and cursed by the many. We once received the best in the land be-

cause we demanded it. We now get the worst because the people think we are glad to get anything.

Three Timely Notices

The editorial page of *The Indiana State Medical Society Journal* gave us three timely notices recently having to do with our own welfare: one on the division of fees, one as to charging the clergy, and a third as to our self-protection in the matter of making a livelihood. From this latter I quote the following:

"Through our public health boards, with their lectures and free distribution of literature, we are teaching the public how to prevent and cure disease. We are sanctioning the erection and maintenance of public hospitals and dispensaries for the free treatment of people, ninety percent of whom can well afford a physician's fee. We are using our influence to secure free antitoxin injections, free vaccination, free school inspections, free tuberculosis sanatoria, and numerous other free benefits for the people which directly take from many physicians the means of earning a living. We are countenancing contract-practice which every day is widening its sphere of usefulness to a large percentage of our population while at the same time lowering the dignity of our profession and exerting a demoralizing effect upon fees in general for professional services. And to cap the climax, the daily papers announce that the courts in some states have decided that physicians have no legal right to fix or maintain uniform fees, while in other states attempts are being made to enact laws permanently fixing a low maximum fee for any service rendered by a physician, and in one of the states an attempt is being made to enact a law making it compulsory for physicians to charge for their time and not for skill."

Corporation Demands

Taking up specific incidents, the following is but a specimen of what it seems the doctor can be made to do. A certain Philadelphia casualty company is author of the following communication recently received:

"We are writing this letter to ascertain whether or not you are in a position to render first aid to employees of our various assured at "Easyville" who may be injured. If you can find it convenient to do this, please go over the enclosed Fee Bills, and if the same are acceptable, please attach your signature to one and forward the same direct to this office, whereupon we shall immediately send out notifications to all policyholders in "Easyville" to send injured employees to you for treatment.

"When injured employees are sent to your office it will be necessary to secure from them a statement on the blank enclosed, headed 'Statement of Accident', also to endeavor to secure a release in consideration of first aid rendered, and the making of a report regarding the injured party's condition at the time the service is rendered."

The fee bills which were enclosed were regular printed schedules to be signed in duplicate and returned to The Casualty Company, Philadelphia, Pa.

SCHEDULE OF SURGEON'S FEES

"These fees have been established with the understanding that they include in all cases the necessary appliances and dressings, such as splints, bandages, antiseptics, etc., for the proper treatment of each and every case, and which are to be supplied by the attending surgeon. It is also understood that in the treatment of all cases the strictest antiseptic precautions will be observed, according to the latest approved methods of surgery, for it is only by such measures that complete results can be obtained and the interest of the Company protected.

"*Fractures, Dislocations, Amputations and Minor Injuries.*—It is understood that under these headings the sums specified shall include after-treatment in all ordinary cases, but should unforeseen and unusual complications arise, in which extra attendance may be necessary, said attendance in such cases and in all others not specified when specially authorized shall be charged for at a rate not to exceed 50 percent of the specified amount for similar services.

*"Fractures—Reducing and Dressing.—*Femur, \$15.00; patella, \$10.00; tibia and fibula, \$8.00; clavicle, \$8.00; humerus, \$8.00; radius and ulna, \$5.00; jaws, \$5.00; ribs, \$4.00; nasal bones, \$3.00.

*"Dislocations—Reducing and Dressing.—*Hip, \$12.00; shoulder-joint, \$8.00; wrist, \$5.00; elbow, \$5.00; finger, \$3.00; lower jaw, \$3.00.

*"Amputations.—*At thigh, \$20.00; at shoulder-joint, \$20.00; at knee, \$18.00; of arm, \$17.00; of both hands, \$17.00; of forearm, \$15.00; of leg, \$15.00; of foot, \$12.00; of either hand, \$10.00; of two fingers, \$7.50; of one finger, \$4.00; of each additional finger, \$3.00; of one toe, \$3.50; of each additional toe, \$3.00.

*"Minor Injuries.—*By this it is understood treating incised or lacerated wounds of soft parts, such as scalp-wounds, etc.; also sprains, contusions and bruises, arresting hemorrhage, stitching wounds and treating the same: \$1.00 to \$3.00.

*"Miscellaneous.—*For examination of injured parties at Company's request, with a view to court testimony, including full and detailed reports at time of examination, \$3.00. For testimony in court as to the simple facts of the injury, per case, \$10.00. For expert testimony, according to value of same, per case, \$15.00 to \$25.00. Removing foreign bodies from eye or ear, \$1.00. Extirpation of eyeball, \$15.00. Reducing hernia and applying truss where rupture has occurred during the discharge of ordinary duty, \$3.50. Passing catheter, \$0.50. Trephining skull (not advised). Cutting down upon and ligating large vessels, \$10.00. Administering anesthetics (assistant) according to time occupied, \$1.00 to \$3.00."

The contract also provides that a special blank should be filled out by the surgeon (answering twenty-one questions) and furthermore, they desire the doctor to fill out and have signed by the injured party another blank (answering forty-eight questions) and, in the words of the Company, "endeavor to secure a release from the injured party in consideration of the first aid rendered." (And the extravagant remuneration that

they offer for the above surgical, medico-legal and legal services should be borne in mind.)

A courteous letter was sent to the above Company, ignoring the fee bill and thanking them for favors, but stating that it was not the place nor the duty of the physician to look after the liability of the Company and secure releases. To this they replied as follows:

"Replying to your letter of the 14th inst., in which you state that you feel as if you had no authority in securing statement and release from the injured party at the time of dressing his injury, we think you need have no objections on that point when we advise you that *eminent surgeons throughout the country* who have accepted our fee bill do this; they are taking into consideration the volume of business coming their way, which to say the least is remunerative."

Like the Irishman's Horse

Just exactly where the excessive remuneration would come in is like the Irishman's horse. By the time he had enough cases to make a living he would have worked himself to death.

"One dollar for administering an anesthetic," which must include chloroform or ether, hypodermics prepared for use, towels for the face, and the pleasure of cleaning up the vomit which is a constant feature in emergency work. "Three dollars and a half for amputating one toe." (We might almost add, "marked down from four ninety-nine.") "Seventeen dollars for amputating both hands." (Anything else that the man wants cut off will be removed for eight-and-a-third.) "For amputating the thigh, \$20.00," which does not include an extra fee of \$3.00 for your assistants and the anesthetizer; twenty-three in all (skidoo for me). "Fracture of the femur, \$15.00, which must include in all cases the necessary appliances and dressings such as splints, bandages, antiseptics, etc., and which are to be supplied by the attending surgeon; it is also agreed that under these headings the sum specified shall include after-treatment in all ordinary cases." (This means, if John

Smith falls over a truck and breaks his femur, that some "eminent surgeons" have agreed to set John's leg, place him in an Allen or an Ambulatory splint and visit him frequently for ten to fifteen weeks, all for the munificent sum of \$15.00!

This form of contract, a few years ago, was submitted to me by several indemnity companies, but the fees agreed upon were probably 75 percent of our customary charge for such cases, and when the company pays for all service rendered, such a contract is far more profitable than the honesty of any set of men I have had to deal with, should collections be made otherwise and from the injured men themselves.

The larger and best indemnity companies have discarded fee-bill contracts, paying a fair fee based on local charges. The smaller and cheaper companies, however, attempt to lessen the cost of insurance at the expense of the "easy" member—the doctor. But the above fee bill is the limit: it represents a charge of one-fifth—20 percent of our customary fees, with after-care thrown in free.

Then they have the nerve to want to sell us malpractice insurance, and demand that we carry it before we get their work to do. But really, 20 percent of the fee bill is apparently an excessive charge for some doctors' services, for there are men in our town who sell their services to families for two dollars a year. The following clipping from *The Journal of the American Medical Association* is self-explanatory:

Lodge Practice

"It is satisfactory to receive occasionally competent, though unwilling, testimony that the attempts to exploit the medical profession by the so-called 'friendly societies' are not altogether a success." Such testimony is afforded by the late chief organizer of the Brotherhood of Owls in Michigan, Wisconsin, Minnesota and the Dakotas in an interview reported in *The Seattle Times* of November 27. After telling how he had to give up his work in these states on account of inability to obtain the services of physicians for the order, he says:

"As a result, the Eagles and the Owls are crumbling to pieces in that territory. The Eagles have raised their dues from 75 cents to \$1.00 a month, but even at that they can not get along because of the increased cost of furnishing medical care to members. The lodge of Red Men at St. Cloud is by 1200 smaller than it was two years ago, owing to this reason." He also says, however, that there are physicians in Seattle and elsewhere in the Pacific states who furnish free medical attendance to the families of the members of these orders who pay 50 cents a quarter for the privilege. "Under this arrangement the physician who does the work for the Ballard Nest of Owls, for instance, gets approximately \$50.00 a month for doing work for which he would otherwise get \$450."

This naive confession, that the organization represented by this witness sweats the physician down to only one-ninth of what he ought to receive is worth noting. Authorities on natural history tell us that the owl is a bird of unlimited appetite and that it will devour more than its own weight of its fellow creatures every few days. It certainly appears, therefore, that this secret benefit organization has chosen a very appropriate name.

So long as the doctor is expected to pay the butcher, the baker, the tailor, and the landlord there is no ethical or esthetic reason for us to give him our services for nothing or for an honorarium. The doctors at the top of the profession who talk most of ethics charge the biggest fees. The man who makes his fee a small one does so for fear he can not get a larger one or in the hope that quantity and not quality will be demanded of him in his services.

The Doctor's Fee Bill

This brings us to the question of the labor-union principle, which some societies have adopted by publishing a schedule of fees for their services. Such a procedure is not only inadvisable, but most unjust. It places a premium on ignorance and lack of skill. It limits the value of our services and places us and our work on the common-labor basis.

The schedule of Los Angeles County, California, is the most complete and best one yet seen, because it consists of several pages of printed matter in booklet form, covering all possible conditions, medical, surgical, and specialistic.

The poor man cannot sit in the game out there, however, and the limit is the roof. For instance, "normal confinements, \$100.00;" "abdominal operations, \$3000 to \$5000 and up." They have the true spirit and exercise good judgment in placing a charitable value on their services.

Several years ago the county societies in Indiana published a similar schedule, which contains the following munificent rewards:

"Normal confinements within four miles of town, \$10.00, and 50 cents an hour after six hours' detention; office consultation and medicine, 50 cents; complete examination and advice with medicine, \$1.00 to \$2.00; twins delivered for \$15.00; placenta-prævia cases cared for for \$25.00."

Wouldn't it be worth my son's while to spend ten years' time and at least \$5000 in money to learn how to do these things (not considering the economic factor of saving a life occasionally) for the above rewards?

I think it would be advisable to send my sons to a "free" trade-school after leaving high school or college: make one a brick-mason, another a plumber, and the third an electrician. I can then give them the money they would spend on a medical education, and they could probably lend the "old man" something to live on in his old age, if the latter had to do his work and charge according to the "union schedule." If a doctor's time is worth only fifty cents an hour after working six hours for a lazy baby, it isn't worth any more any other time—and that is less than the plumber, the mason and the electrician charge where they are "on the job."

But this schedule is munificent in comparison with the fees in other places I have visited. I was in a neighboring city in consultation recently, and a patient came into the doctor's office. After examination some "stomach medicine and neuralgia tablets"

were prescribed. Three ounces of elixir of lactopeptine and twenty-five migraine tablets were dispensed for fifty cents. In one locality visited in Ohio I was told of several physicians who charge a dollar a call for country visits within five miles of town and twenty-five cents for 4-ounce prescriptions. Dispensing the latter is not bad from a commercial standpoint, for there is usually a profit of 200 or 300 percent in the deal. Charging simply for medicine, however, ignores compensation for our skill, our ability, our time, our expense of education, our life insurance and our cost of living and raising a family.

Socalled Pauper Practice

The question of the care of those who cannot pay offers as many problems for solution as does that of getting pay from those who have the money. In Michigan the Tuscola County Medical Society has contracted to do all the charity work, and the following statement offers the best means for doing away with competition and underbidding for county-work among physicians and insures proper medical services for all indigent persons while it distributes the work so as to make it burdensome for no one. After becoming incorporated as a county society, the following communication was sent to the board of supervisors:

"To the Honorable Board of Supervisors of Tuscola County: There is dissatisfaction existing in relation to the present method of rendering medical aid to the indigent poor of Tuscola County. First, among the people, because by contracting with a certain physician to look after all the indigent cases in a certain township or district they are robbed of the privilege of making their own choice of a physician and are sometimes compelled to be treated by someone who is very distasteful to them and in whom they do not have that confidence and trust often so necessary to their comfort and satisfaction. Because of these peculiarities of people, a physician is sometimes called, and often does, care for an indigent case for which he receives nothing because some other physician holds a contract for the township in which

the patient lives. With the candid desire of rendering these conditions more agreeable to all concerned the Tuscola County Medical Society has formulated a plan which, if adopted, it is believed will obviate the difficulty and make harmonious the relationship of patient, physician and supervisor.

"The plan, simply stated, is this: Let the supervisors pay to our Society an average sum each year, such sum to be based upon what has been paid for the medical care of the indigent poor of the County for the past three years, and each member of the Tuscola County Medical Society contracts to take care of all the indigent work that comes to him with an order from the county supervisor.

"Such a plan can cost the county no more for medical services than it has paid in the past. It will give to the poor patient the

privilege of selecting the physician he would choose were he paying his own bills. It will tend to divide the indigent work more nearly equally among the several physicians of the county, and, at the same time, it will put into the treasury of the County Medical Society a fund, a portion of which it purposes to use for the general improvement of the Society and its members individually, thereby bringing directly a benefit to all the people of the county."

The supervisors accepted the proposition and made a contract with the society. The Society is to be paid in quarterly installments. In addition to the amount to be paid, which is about \$4000 per year, the county pays for all antitoxin and also agrees to pay all physicians who render extraordinary service in time of an epidemic of small-pox or other contagious diseases.

M U S T A R D - S E E D M E D I C A T I O N

Two cases in which the alkaloidal granules, compared to mustard seed on account of their size, were shown to possess therapeutic effectiveness

By M. CLAYTON THRUSH, Ph. M., M. D., Philadelphia

A NUMBER of my patients have very aptly compared the alkaloidal granules to mustard seeds and I am frequently confronted with the remark, "Oh, what tiny little pills! They look almost too small to be of any value." But after taking a few of these "tiny little pills" I notice a decided change of opinion, as the following case will illustrate:

Relief of Pulmonary Congestion

Mrs. L., age 70, refined and cultured old lady, who was caught out in a storm, her clothes becoming quite wet before she reached home; a few hours later she was suddenly taken with a severe chill lasting fifteen minutes and a stabbing pain over lower portion of thorax on the right side, which pain became quite severe in a short time, so that I was hastily summoned.

On arriving at her home I found the patient in a very sick condition. The entire lower lobe of the right lung was congested, temperature 104°F, respiration 30, and pulse quite rapid and bounding, rate 130. A nurse was at once procured and treatment instituted.

A large plaster of cataplasm of kaolin was placed over the congested area and covered with a cotton jacket made in the usual manner from cotton batting. Liquid diet was ordered and eight 1-4-grain calomel triturations were given at half-hour intervals, followed by a saline purge. Granules of defervescent compound (aconitine, digitalin and veratrine) were ordered, one to be given every hour until the temperature reached normal. When the patient saw the granules she exclaimed, "Will these tiny little pills do me any good?" I enjoined her to wait and see. The first granule was given at 3 p. m., tem-

perature being 104°F.; a second was given at 4 p. m., when the skin was slightly moist; a third at 5 p. m., when the skin was decidedly moist and temperature down to 103°F. Another one at 6 p. m., and now she was sweating freely with temperature 101°F. At 7 p. m. the sweat was pouring out of her freely, and at 8 p. m. she was "taking a bath", as she expressed it, and the temperature was now normal. In other words, the temperature dropped from 104°F. to normal in five hours.

The nurse now changed her garments, and the granules were continued at three-hour intervals. The next morning, when I called, the patient was resting comfortably and wished to sit up in a chair. Examination of the chest showed the congested area rapidly disappearing, and a speedy convalescence resulted. Being a splendid type of Christian character she remarked: "How appropriate is the biblical expression: 'If we have but the faith of a mustard seed we can move yonder mountain.' Truly these pills have wonderful power."

In a Case of Myocarditis

Another case will illustrate the value of a vascular sedative in certain cases of myocarditis with over-action of the left ventricle (compensatory).

Miss S., age 35, suffered with severe attacks of rheumatism during the adolescent period, the result being a mitral regurgitation, followed later by an associated stenosis and myocarditis of moderate degree.

When first called I found her propped up in bed, affected with advanced cardiac disease. There was marked edema of extremities as well as around orbit and in abdomen, in fact almost a general anasarca due to failure of compensation, double mitral murmur and aortic insufficiency. Pulse was variable and at times rather rapid and weak. Under treatment she rapidly improved so that in three weeks the edema had almost disappeared from her limbs and body, but she complained of a peculiar unpleasant sensation around the heart, as though the heart were swelling and trying to get out. This condition prevented sleep, so I ordered aconitine, 1-134-grain granules three times a day, the result being surprising. She experienced relief at once and at present the heart-action is excellent, the murmurs are only slight, the volume of pulse good, and the patient is able to go around and pursue her occupation as manager of a dressmaking establishment.

In heart-cases where there is over-action and hypertension I have always derived excellent results from this line of treatment.

THE COSMOS OF A STUDENT'S GARDEN

The story that the planting of a rose-slip tells the student, of the meaning and fulfillment of life. Not a medical article—but an inspiration to "growth"

By CHARLES EUGENE BANKS, Montera, Washington

THE sharp thorn upon the rose slip cut into my thumb and the red blood sprang forth to the sunlight. I thought of the rose leaves that were hidden away in that bit of crooked, bristling stalk of wood, looked again at the crimson drop on my thumb, and wondered if the thorn might not recognize the fact that it had

brought forth a premature blossom outside of its own nature.

The little garden I have made my own is away up in the Puget Sound country in the foothills of the Cascade range of mountains. All this land was at one time covered thickly with giant fir trees hundreds of feet high. More than fifteen years ago the avarice of



"Waupello Lodge," Bungalow of Charles Eugene Banks. Mr. and Mrs. Banks and their Angora Cat.

man swept them away, as a farmer sweeps away the golden stalks of a wheat field. The land was left desolate, covered with underbrush, ragged with splintered stumps, impassable from half-demolished tree tops, and the refuse of tree trunks. For in those days it did not pay the timbermen to take anything but the straightest and clearest-bodied logs. Trees were plentiful for the day, and sufficient unto that day was the tree thereof. And now, all about this little patch of rich ground I have cleared is scattered enough rotting timber to keep warm the poor of all the cities of America for at least one winter.

But deforestation is being followed with gentler methods, and others, like myself, have come into this beautiful country of soft rains, luminous skies, magnificent stars, sublime mountain peaks, musical ocean winds and fertile soil to make the earth once more beautiful, but in a different way.

As I put this rose slip into the ground—it is not above a foot in height—there comes to me the comparison of it to the lofty fir it is replacing. Across the rough roadway that is called Lexington Avenue, and just within the shadow of a group of young firs selfsown, lies the trunk of a great fir tree, as sound and clean as when it came crashing down among its complaining kindred fifteen years ago. It was evidently cut in the spring when the sap was running, and so has not rotted. Why it was not used no one will ever know. It is straight, and the grain true. Once it towered high overhead, straight and fresh and green, the winds sounding in its top, like the strains of a pipe organ played by a master. The rose slip I am planting to take its place might lie upon that great trunk unnoticed. Yet it has overthrown that giant and for many generations to come will hold the land that once belonged to the firs.

That is the Science of Life. The drop of blood upon my thumb that answered to the thrust of the thorn has come the same long journey from ooze and slime to this rich rose color. It has drawn before it the savage forces (like the men who cut away these trees) laid desolate the forests of coarser flesh, so that the finer might find room to grow.

Here is my garden! Mark the wall that shuts it in. A hundred miles of solid alabaster, with pillars of pure pearl at either end, some fourteen thousand feet their tops above the sea! It is a rare wall for a garden fifty by a hundred feet, is it not? It is like the rose stalk I am planting in place of the great fir overthrown. This little spot was as much too small for the primeval trees as the mountain range seems too large for my garden wall. But I see nothing inharmonious in either. The fiery Mars that looked last night upon me standing here in the stillness

of mysterious night seemed none to big for the scene. Nature has no discords. Her work is perfection always.

The Spirit of Beauty Hidden Within

Into the soft rich soil, O rose! Somewhere within thy crooked stem there hides the spirit of such beauty as shall make all this garden glad before the summer goes its way. Like the tiny drop of blood upon my hand; like the giant mountain peak, and the far-flung range of snow capped and tumultuous mountains; like the fallen fir and the far away star in the sky you hold your course unswerving. A million years ago thy parent entrusted to thy keeping its form and beauty and fragrance. It gave to thee the Rose. And that trust you have never betrayed through all thy journeyings. Still in thy seed each year thou hast wrapped the old form and color and fragrance, and still the returning season has brought it forth



Corner of Living Room in Mr. Banks' Bungalow.

again. So has the lily been faithful to its trust, and so the violet. But thou, more than all, for into so many and diverse forms of shrub and tree hast thou matured for man's delight, as well as for his food, that it would not seem strange if thou hadst forgotten thy message and have gone astray delivering another word!

But the Great Intelligence is in you as in all. As I look upon the curving branches of shrub and tree, and think of the rolling waves of the blue Pacific out there under the arching sky, and see how perfectly the long sweep of the distant mountain range fits to the arching sky-line, and note that if the two ends of any of these things from the least to the greatest were to follow out the curve begun they would surely meet in the perfect circle in time, I am thrilled with the understanding of God. His law is ever and always that—a return to Him. There is no straight line in the universe of God's making. There is nothing of His creating that is "stale, flat and unprofitable." The straight line comes to an end and perishes of itself. The curve comes surely home again.

How prettily curved will be the rose petals that must come out of this plain stalk! What glow of color will circle about the heart of the flower. How the whole blossom will strive to reach perfection in globular form!

"From worlds not quickened by the sun
A portion of the gift is won"

Dear old Mother Earth! What a faithful nurse art thou for all thy children. The milk that the lips of life suck from thy breasts flows perpetual to the touch of love. The brotherhood of the world is in it. If I do love the dogwood blossom it is not because there is virtue in me more than in the flower. It is life flowing through flower and man making both really one. Nothing can destroy that flow but wickedness. When I have broken the law of love I have separated myself from flower and shrub and mountain and man. I am alone. That is the pun-

ishment for disobedience to the Gentle Spirit.

Work is the salvation of man. It ennobles him. But to dig in the earth and plant seeds—that is the sweetest employment man can know! Beauty lies so close in the warm earth, waiting only for the placing of those little electric batteries of seeds to marshal all her glorious train and come forth trailing her clouds of delicate colors. I look up from my work to see my neigh-



My Neighbor's Children and "Tinkle Bell"

bors children coming toward me. They stop to sit on a rug in the sunlight where Tinkle Bell, our Angora cat, lies asleep. They wake her and tie a ribbon about her neck. They laugh aloud at the picture she makes with this strange decoration. It does not add to her beauty. No decoration can enhance the grace and charm of nature. The animal is perfect in itself. Only we forked sticks in the moving world need embellishments to make us presentable. I note the ribbon in Dorothy's hair. It is becoming. The light on Elizabeth's face is beautiful, something like the light that is in the rose, not of this world. I remember Wordsworth's lines:

"Our birth is but a sleep and a forgetting;
The soul that rises with us, our life's star,
Hath had elsewhere its setting,
And cometh from afar,
Not in entire forgetfulness,
And not in utter nakedness,
But trailing clouds of glory do we come
From God, who is our home;
Heaven lies about us in our infancy!
Shades of the prison-house begin to close
Upon the growing boy—"

Ah, yes; the years have drawn a veil between us and the world of realities. It is only when we are at work in the earth that we become as little children and the inner eye gets glimpses of the cosmos. Here, in my garden, lies the book of life. When I am fortunate enough to turn a page I find new and beautiful sentences written clear and bold, the reading of which gives me great joy.

Growing Toward Completeness

I stoop to examine the waxen bud upon the lilac that I planted last fall and I hear the rhythmic beat of light footsteps, and know she who is the real leaf-turner for me is coming with some suggestion that will make the day memorable. It is the same with us as with the rose, and the lilac bud, and the branches of the tall fir, and the tasseled alder bushes. We are striving toward a rondure—toward a completeness in our beings. When the dusk has fallen and we sit before the grate fire in our little study, the fir sticks snapping in the grate, the soft wind sighing in the dogwoods, the window, the pictures of friends gazing dreamily at us from their places on the wall—in the silence that is a blessing, we grow toward fulfilment. The odor of the fresh earth is still in my nostrils, and the under and over-world of clarified vision still in my heart. The cosmos of my garden has come with me into the house, and it needs not words to tell Her that I have seen somewhat strange and important.

Perhaps something like the following verses will drift down out of the soft shadows and we will set down the lines together:

Happy the man who in some rural glade
Contented dwells, nor of its confines tires;
The rich, sweet soil upturning with his spade
Where the dark earth, with little toil, is made
To yield sufficient for his few desires.

The rush and turmoil of the greedy town,
Its sin and pride and shame, to him unknown;
Nor beggar's whine, nor surly Mammon's frown;
Nor cracked-voiced vender crying up and down,
Nor drunkard's oath, nor ruined Virtue's moan.

Instead, the morning pulsing full with life,
O'erflooded with the varied song of birds,
The pure, fresh air with scent of flower's rife,
Nor discord here, nor sound of sordid strife;
But eloquence without disturbing words.

With swelling breast he roams the dewy meads,
The meanest flow'r his joy and tender care;
The murmur'ing winds they stir the tangled reeds,
Fit orchestra adapted to the needs
Of Nature's drama acted for him there.

Of castle massive often he has read,
Of mosque, of temple and cathedral grand—
Yet turns for beauty to the fields instead,
Finds some new pleasure wheresoe'er he tread
In meadow, wood or on the yielding sand.

The cliff abrupt; the river's silver flow;
The eagle's flight; the tempest-ridden wind;
The gleaming salmon swinging to and fro
In quiet pool; the timid, graceful roe—
All dear companions of his student mind.

For him the peace of close converse with God.
To him the door of Nature opens wide;
The woods, the hills, the daisy-spangled sod,
He loves them all. Where others blindly trod
He moves serene—his being satisfied.

Amid such scenes his gentle life is passed,
The ward of Wisdom, learning what is best;
His creed to love, his church the vaulted vast,
In contemplation richest at the last—
He falls asleep upon a kindly breast.

The rain is softly falling on the roof of the bungalow. It comes down gently with a caressing touch. The rose bush which I planted this morning will give the shower welcome and the garden will show green and fresh with the morning sunlight, for it is now past the rainy season, and this shower is a grateful surprise to all growing things, myself included. For I wish to grow even as the lilies, not that I may outdo Solomon in his glory, but that I may have the beauty in myself that I know is behind all material things, the beauty that "was never on land or sea," but is land and sea and sky and all the universe. I do not mind handling the thorny rose slips, since I have seen what is contained in that homely forked stick, with no beauty upon it, but all beauty hiding within, or without, and over, and around it, to have manifestation ere long in the queen of all flowers. Ah, the pure passion of the rose, the pure, sweet never-ending passion!



MEDICINAL ACTIVITIES IN VEGETABLE MATTER

A classification of the active principles found in plants;
with a condensed statement of their nature, character,
and the advantages which they possess therapeutically

By WILLIS EUGENE EVERETTE, M. D., Tacoma, Washington

IT has gradually been growing upon the mind of the active, truth-seeking physician that the giving of "drugs" in the shape of all kinds of compounds and mixtures, hoping that some definite therapeutic action would be produced thereby, is all a mistake; also that it is now time for us to realize that we can economically obtain the concentrated active and potential principles from all of the medicinal vegetable matters and that we can

quickly secure just the exact result that we desire when giving such medicaments without being obliged to use so much unnecessary drug-material as has heretofore been used in giving medicines for disease.

In this article I call special attention to the "alkaloids", as they are the most potentially energetic of all of the active available principles of medicinal vegetable matters.

THE MEDICINALLY ACTIVE PRINCIPLES THAT ARE OBTAINED FROM VEGETABLE MATTERS

ETHIONOIDS—The excessively volatile nitrogenous oxidized hydrocarbons, that are the radioactive organic emanations—both automatic and responsive—(most terrifically poisonous) which with *extreme analytical and chemical care* may be extracted from certain forms of vegetable matters (The *organic-etheric-ionic bodies* that are constantly being "radiated" from certain forms of vegetable matter.)

ALKALOIDS—The available medicinal and concentrated *potential energy* of the entire plant.
AMIDES—(CHNO)—*Fixed Solids*—As strychnine, morphine, aconitine, etc.
AMINES—(CHN)—*Volatile Liquids*—As nicotine, cicutine, sparteine, etc.

GLUCOSOIDS—Usually an easily fermentable oxidized vegetable hydrocarbon (very rarely contains any nitrogen)—As strophanthin, salicin, etc.

NEUTRALOIDS—The non-fermentable oxidized hydrocarbons of the plant (somewhat related to glucosoids)—As glycyrrhizin, elaterin, aloin, santonin, etc.

AMAROIDS—The bitter extractive principles of the entire plant—(as represented by the bitter taste of galenic medicaments)—Of varying and indefinite chemical composition.

ETHER-OLEOIDS—The natural *volatile* ester-ethers of the vegetable matter. The native odoriferous (Ester-oleoids) and ethereal essential oils—Can also be produced synthetically (artificial essential oils) (Etholeoids)
1.—(Nitrogenated)—($C_{20}H_{27}O_{11}N$) As oil of bitter almond
2.—(Sulphurated)—(C_4H_5NS) As ethereal oil of mustard
3.—(Oxygenated)—($C_8H_{14}O_4$) As oil of eucalyptus
4.—(Terpenes)—($C_{10}H_{16}$) As oil of turpentine
Synthetic forms of *Ether-Oleoids* may be produced from *Terpenes*, by metamorphic action with heated water and added elements; and also, many artificial "ester-ethers" (or Ether-Oleoids) may be produced by recombination by similar thermo aqueous action.

FIXED OLEOIDS—The *non-volatile* ester-ethers of the *fatty acids* that are taken from vegetable matters. These fatty acids are *Stearic, Oleic, and Palmitic Acids* (The fixed oils, from seeds, beans, nuts, and fruits)—As palm oil, olive oil, castor-bean oil, cocoanut oil, croton oil.

RESINOUS OLEOIDS—The *native solutions* of the resinoid principle, naturally dissolved in the etheroleoid of the vegetable matter (A native oleoresin of the plant)—As oil of cubebs, oil of capsicum, oil of ginger, oil of black pepper.

BALSAMOIDS—The *soft or liquid* resinoid principle, containing the native odoriferous part of the plant, together with (usually both) cinnamic or benzoic acids—As balsam of tolu, balsam of Peru, balsam of benzoïn, balsam of storax.

GUMOIDS—The *soft, and usually non-hardening*, resinoids—As the *native exudations* of the vegetable matter. The *naturally dried sap* of the plant—As gum myrrh, gum asafetida, gum acacia, gum tragacanth.

RESINOIDS—**NATIVE**—The *solid or semi-solid* (induced or native) uncrystallized “resinous exudations” from vegetable matters, of a more or less indefinite form of chemical composition—As resin of pine, resin of jalap, resin of podophyllum.

ARTIFICIAL—Another form of resinoids are the (more or less) concentrated *entire* fixed activities (artificially produced) of the vegetable matter, in a rather incompatible and antagonistic indefinite chemical mixture of *medicinal paste*—As cactin, juglandin, hydrastin.

ANTAGONISTIC QUALITIES—*Jaborandi* gives two antagonistic alkaloids—pilocarpine and jaborine. The *poppy plant* is another illustration, as it gives morphine and thebaine, which are antagonistic to each other. From the *resinous opium* of the poppy plant there are obtained, 18 alkaloids, 2 neutraloids, 2 organic acids, and sugar, gums, etc., all more or less antagonistic to each other.

Alkaloidology

1. *Alkaloids*—such as are used in the practice of the science of medicine—are composed of highly nitrogenous organic compounds which are closely related to the “earth alkalis” in their capacity of uniting with acids to form crystallizable salts.

2. Alkaloids belong to two physical classes, which chemically are called, *amides* and *amines*.

3. An amide alkaloid is a complex compound of oxygen, hydrogen, carbon and nitrogen, and is always in a solid state and is free from any appreciable odor.

4. An amine alkaloid is less complex in character, does not contain oxygen, is very unstable to the action of heat, is a highly nitrogenous mixture of carbon and hydrogen, is always in a liquid state, and has always more or less of an ammoniacal odor.

5. Alkaloids may or may not be a *native* chemical constituent of the vegetable matters from which they are taken; as they may be produced by metamorphic action of the active principles of the plant during their process of extraction.

6. Alkaloids, normally in the original vegetable matters, when in contact with putrefactive organic compounds and substances, often change into another biochemical class of alkaloids, designated as “ptomaines.” [We do not know Dr. Everette’s authority for this statement, which certainly is at variance with accepted ideas. Pto-
maines are the products of the putrefaction of animal matter, as the result of the presence of certain saprophytic bacteria. The vege-

table alkaloids, on the contrary, are normal constituents of plant-life.—ED.] These secondary alkaloids (ptomaines) are seemingly the primal cause of most of the diseases that man is subject to—for they seem to set in action peculiar conditions for the spontaneous formation of various kinds of actual microbic growths. Here I cite algæ bacteria. (*Scient. Amer. Suppl.*, Jan. 4, 1908.)

The experiments of Prof. Dunbar (Director of the Hygienic Institute, of Hamburg) show that bacteria, yeast fungi and mold fungi are produced by algæ, in organic and inorganic culture liquids: “The possibility of a higher species giving birth to numerous distinct lower species, under the influence of particular chemical and physical agencies, is an idea wholly new to biological science.”

“If Prof. Dunbar’s conclusions are verified . . . a new light will be thrown on the origin of these lowly organisms.” “After the theory of spontaneous generation of bacteria had been exploded by the researches of Pasteur, Cohn, and Tyndall, it was generally assumed that bacteria had existed since the beginning of life, as a ‘constant species.’ . . . Now, after years of preliminary researches, Prof. Dunbar has succeeded in observing the development of yeasts and molds as well as bacteria—from his pure culture of algæ.”

7. Alkaloids are the most available concentrated form of the total active medicinal constituents of all vegetable matters; and, therefore, the alkaloids—both amide and amine—are the most important of all the organic compounds that are used in the practice of the science of medicine.

8. Amide alkaloids are such crystalline solids as aconitine, morphine, strychnine, quinine, etc.

9. Amine alkaloids are such volatile liquids as sparteine, cicutine, nicotine, etc.

10. Alkaloids are not only the most concentrated and energetic of the (ordinarily available) potential activities of the vegetable matters from which they were extracted, but—when properly extracted and isolated from their cognate antagonistic activities in the vegetable matter—(1) they can always be relied upon to be *decisive* in therapeutic action; (2) they are *invariably* of uniform amount of concentrative potential medicinal energy; (3) the alkaloidal salts, made therefrom, being quickly *soluble* in always available liquids, are thus very valuable for rapid working, when it is imperative to administer instantly the medicament hypodermically, or even intravenously—as shown by the researches of Baccelli of Rome; (4) the *quantity* of dosage is trifling and they are practically *odorless*—both conditions having special psychological values for the physician to realize; (5) they are *easily* absorbable and practically *palatable* if ever any medicament can be called “palatable;” (6) they have less tendency to create anorexia or to cause nausea than any other form of medicament. (7) For these aforesaid reasons alkaloids are the most important physiotherapeutic remedies that we can obtain by our entire knowledge of the physical therapeutics that we can employ from the use of our *materia medica*. (8) For alkaloidal intravenous therapy see *La Via delle Vene Aperta, ai Remedi Eroici*. (G. Baccelli, Rome. Tipografia Nazionale, 1907.)

11. It is a law in physiotherapy that organic nitrogenous medicaments have greater activity, as poisons, as nervines, and as remedial medicines than any other class of medicament, whether galenical or mineral.

12. An alkaloid, in high or maximum dose, will always have an opposite and an entirely different kind and degree of therapeutic action from what the same alkaloid will have when it is administered in a low or minimum dose.

13. An alkaloid—or in fact any medicament—in *high* or maximum dose, will always depress the physical energy of the body, whether in health or disease.

14. *Per contra*, any class of medicaments, alkaloids included, when given in *low* or minimum dose, will always stimulate the physical energies of the body, whether healthy or diseased.

15. Any class of medicament having a high organic nitrogenous content, when given in maximum dose, will always act powerfully as a depressant on the entire nervous system, whether in health or illness.

16. Any class of medicament having a high nitrogenous content, when given in a minimum dose, will always act powerfully as a decided stimulant on the entire nervous system, whether in strength or weakness.

17. Alkaloids, as they consist very largely of nitrogen, can therefore be depended upon to give exactly the kind and degree of therapeutic action and result that is desired and required by the physician, whenever the giving of medicaments is necessitated for nervous diseases.

18. Alkaloids, therefore, are the best therapeutic stimulants and depressants that we can use as remedial and medicinal agents.

19. *Glucosoids*, or *glucosides*, are compounds of oxygen, carbon and hydrogen, and sometimes (very rarely) contain a slight amount of nitrogen. In contact with any organic fermentative process, or in contact with inorganic aqueous acids, they change into glucose, with formation of phenols, aldehydes and alcohols. Salicin, strophanthin, etc., are varieties of glucosoids.

20. *Neutraloids* are *nonfermentable*, oxidized hydrocarbons somewhat related to glucosoids. Aloin, elaterin and glycyrrhizin are varieties of neutraloids.

21. *Amaroids* are the *bitter principles* of vegetable matters, of somewhat varying chemical composition, and are represented in the bitter taste of many galenic medicaments.

22. *Ether-Oleoids* are the volatile and odoriferous extracts, either native to the vegetable matter or chemically produced by a recomposition with heated water. When

containing *nitrogen*, such as oil of bitter almond are produced. When containing *sulphur*, such as ethereal oil of mustard is produced. When containing *oxygen* such as oil of eucalyptus are produced. And when consisting of *carbon* and *hydrogen*, the "terpenes" are formed, such as oil of turpentine.

23. *Fixed-Oleoids*, as the fixed oils, are the nonvolatile ester-ethers of the fatty vegetable acids—such organic fatty acids as palmitic, stearic and oleic acids. They are produced in the form of the oil of olive fruit, castor bean, cotton-seed, nearly all kinds of nuts, croton oil, and from all forms of fatty, oily, vegetable matter.

24. *Resinous-Oleoids*, as oleoresins, are the native solutions of the resinoid principle normally dissolved in the native ether-oleoid of the vegetable matter. They are produced as the oils of cubebs, capsicum, ginger, etc.

25. *Balsamoids* are the plastic or liquid resinoids, as exudations from vegetable matter, containing the native odoriferous principle of the plant, with usually both benzoic and cinnamic acids. They are produced as balsam of tolu, balsam of Peru, balsam of benzoin, etc.

26. *Gumoids*, or *gum-resins*, are the soft, semisolid, nonhardening, resinous exudations from vegetable matter, such as gum asafetida, gum myrrh, and other gummy substances.

27. *Resinoids* are the hard or soft concentrated compounds of induced or native uncrystallizable exudations from vegetable matters. Certain forms of resinoids take in the entire fixed properties of the plant, and are therefore never of definite chemical composition, nor can they ever contain all of the volatile active medicinal part of the vegetable matter from which they were formed. The natural exuding resins of vegetable matter result from manipulation of the plants, such as the resin of pine, resin of jalap, resin of podophyllin, etc., while the artificially concentrated resinoids represent the virtues of the entire plant, such as cactin, hydrastin, juglandin, etc.

28. By a study of the above analysis of the available medicinal constituents of

plants we therefore find that the most potentially energetic of all of the available active principles of our medicinal vegetable matters are the alkaloids. For, as heretofore explained in paragraph 10:

a.) The alkaloids contain all of the *medicinally* potential energy of the plant, i. e., in a commercial sense. [The alkaloids and other active principles.—ED.]

b.) The alkaloids are always *uniform* in their amount of concentrative energy.

c.) The alkaloids are *positive* and *decisive* in their therapeutic action, either as a *depressant* or as a *stimulant*, as desired.

d.) The alkaloids [or their salts] are quickly and easily *soluble*, and are small in necessary *quantity* of dosage.

e.) The alkaloids are *free* from causing any *excessive* nausea or *anorexia*.

f.) The alkaloids are neatly administered, and are free from any repugnant medicinal odor.

29. *The Poisonous Emanations from Vegetable Matters*.—a. We have now taken out all of the normal medicinal extractive principles from vegetable matters.

b.) But, there are other "potential forces" and "activities" in vegetable matters, that are rarely ever known or heard of outside of certain chemical laboratories of highly skilled analysts.

c.) These other "potential forces" are the excessively poisonous nitrogenous oxidized hydrocarbons, which are the ethereal and extremely volatile, organic, radioactive emanations from certain plants practically the *supernormal activities* of the vegetable world.

d.) These organic and excessively volatile and dangerous poisonous nitrogenous vegetable emanations have a radioactivity somewhat similar to inorganic radium and thorium compounds, both direct and toward each other, according to the degree of concentration (whether vapory and condensed) of the "emanations."

e.) These extremely poisonous and very volatile radioactive organic nitrogenous oxidized hydrocarbon vegetable emanations are constantly being given off by certain plants; and (when not artificially concentrated or

condensed into a vapory or a liquid form) seem to have a more or less beneficial oxidizing action on the carbon of the microbic life (i. e., bacteria) which is always, to a greater or lesser extent, in the surrounding atmosphere of the normal environment of the plant.

f.) Certain of these radioactive vegetable nitrogenous emanations, when in concentrated, condensed form, are so terrifically poisonous that when inhaled they will cause death by instant paralysis both of the sensory and the motor nervous systems; also, they are instant death to all forms of insect-life (when in the atmosphere of its excessively volatile vapor or emanation) when condensed into a vapory liquid and allowed to volatilize or evaporate into the air.

g.) I have named these volatile potential forces from vegetable matters "ethinoids," from their ethereal, ionic nature—as they are the organic, etheric, ionic bodies that are constantly being radiated from vegetable

matters to a greater or lesser degree, depending on the environment, soil, climate, and the botanical character of the plant.

h.) Whether or not we shall ever be able to condense these radioactive vegetable nitrogenous emanations into available liquids for direct medicinal purposes is about as difficult a medico-chemico-legal question for the student of synthetic and analytical chemistry and medicinal practice to solve, because of their intense volatile and poisonous qualities, while leaving no trace in the body after death for ordinary chemical analysis to discover, as is the related question of accurately defining the *supernormal* of the mental faculties of man to the student of the (so-called) psychic phenomena of telepathy, clairvoyance, clairsaudience, hypnosis, etc., that is now being very carefully and practically investigated by students of science. But as no study ever can possibly be too great for man to learn, therefore, *crede quod habes et habes!*

INDIAN BELIEFS AND SUPERSTITIONS

The ideas of the Indian concerning the spirit world and how it influences man and animals; his beliefs concerning health and the influence of "medicine"

By CHARLES S. MOODY, M. D., Mullan, Idaho

IN a previous article I spoke of the influence that the spirits are supposed to exercise over the welfare of the Indian. In some manner never fully understood by me the spirits are supposed to inhabit the bodies of birds and animals. If I have understood aright, all birds and animals partake of these characteristics.

I doubt very much whether the savage himself could give a reasonable explanation of how this influence is exerted. He looks upon the lower orders of creation as his brothers, and upon some of them, indeed, with a great deal of veneration. Especially is this true of the bear family. An Indian never kills a bear without asking its pardon for the act. He does not hesitate to kill the animal, but

before doing so, or very shortly afterward, he addresses the animal somewhat as follows: "O bear, I have slain you, for my little ones need food, and your skin will make them warm when the weather is cold, but I hope, O bear, that you will forgive me and that all your ancestors and all your children will forgive me." This is not the exact language, but it will serve to illustrate what I mean. The same tender regard extends to practically all the lower animals. Even the rattlesnake is protected unless his snakeship insists on occupying the same tepee with the Indian. If the rattler is out on the hills attending strictly to his own affairs the Indian will certainly never molest him.

I started to tell about the totem, or fetish. The totem in different parts of the Northwest has different significations. For instance, in the far north it is a sort of rude history of the tribe or family, and at the same time it is supposed to ward off danger and protect that family from disease and disaster. With the Indians of the Pacific slope the totem never becomes a history of the tribe but is always an amulet for protection only.

In the olden days, when a young man became an initiate into the degree of warrior, he was caused to submit to various forms and ceremonies, the last of which was a vigil and fast enduring through a day and a night. With the first streak of dawn on the morning when the fast was concluded he was to arm himself and go forth. The first animal or bird that met his gaze was to be killed, and that animal or bird became his totem.

In these later days the form has been changed somewhat. The youngster is a candidate now as of yore, but he is not caused to undergo any protracted vigils and fasts. He is chosen or elected into full fellowship, in other words, he is called a man and allowed to choose his totem.

The same rule holds now as formerly with regard to the selection of the totem. It is the first object that meets his view in the morning after he becomes a man. In many instances this object is the common magpie or the common little striped squirrel, from the fact, I think, that these two are found in profusion about every Indian camp. My own (given me by the tribe) is the chipmunk, while that of my wife is the small black-and-white river-duck that is so common along our western rivers.

Preparation of the Totem

When the totem is chosen it is specially prepared for use by the wearer by the "sikiptawat." It is sewn into a buckskin bag and worn about the neck. In many graves that I have entered the totem was lying upon the sternum practically intact, while other portions of the clothing was rotted.

A few of the more highly educated Indians have abandoned the wearing of the totem, but it is present in practically all the tribes. The Catholic Indians have discarded it for the scapula, the latter fetish taking the place of the skin-bag and its contents.

As I stated before, I have never fully understood the supposed influence, but that it has something to do with the health of the wearer is evident. No Indian will sell his totem. Money, and what is more craved, liquor, will not tempt him to part with it. I have known the red brother to barter his horse, saddle, blankets, moccasins, pants, shirt, for whisky, but he never was known to barter his totem.

Indian belief in the efficacy of remedial agencies does not confine itself to the human family alone. The Indian believes that the salmon is affected by a "medicine" the same as a person. This is best illustrated by their custom of providing the fish with a "medicine" in the spring when the run is on.

Fixing up his Bait

The spring run of salmon begins early in March and continues throughout that month and well into April. At the time of the first run the fish take the hook very readily. The method of taking them is by baiting the hook with a large section of the roe from the female fish. In addition to this the savage fisherman climbs among the steep rocks that wall the river shore, and in some protected crevice he finds a stalk standing, bare and brown, that has survived the blasts of winter. At the bottom of this stalk lies a tuberous root of very aromatic smell and taste. When bruised, it exudes an oil. The Indian provides himself with a liberal supply of this root and returns to his canoe. He washes it clean and with two stones bruises it thoroughly. Then he washes his fishing line and anoints it well. Throwing the bruised roots in the bottom of the canoe he beats them with his paddle until it, too, is well scented with the aromatic oil. Upon the bruised mass of roots he lays the salmon eggs that are to serve for bait.

Now he is ready for the salmon. He pushes the canoe out into the stream, casts his baited hook overboard and sings to the god of chase for success. Nothing will tempt an Indian to fish with hook and line for salmon without first applying the "medicine." It matters not in the least to him that his white neighbors fish in the same stream and often from the same boat and, not using the "medicine," catch just as many fish as does the Indian. His belief is unshaken in the virtue of his remedy. I am not sure of the identity of the root they use but I think it is sweet cicely (*osmorrhiza longistylis*).

The Remedy of the Parturient Woman

The traveler in the pine regions of the West often is struck by seeing a "blazed" spot on the side of a large pine. This spot is something like three feet in length and may extend almost entirely around the tree. In many instances it is very old and the tree has grown over and partially concealed it. For several years I saw and wondered what these marks could mean. After my sojourn among the savages I learned. The *enciente* woman goes out into the forest, selects a large yellow pine and proceeds carefully to scalp the outer bark off a space. After she has denuded sufficient surface down nearly to the inner pulp she takes her

camass hook and peels off the pulp. This she dries and pounds into a very fine flour. Wetted with water into a porridge and eaten it is supposed to exercise a favorable influence over the process of gestation. This custom must be very old, for I have seen pine trees cut bearing this scar in which the wounded surface had been entirely covered by a new growth, many hundreds of years old.

Once in the South I was told by an old negro mammy that a skunk killed and eaten would make labor for the parturient woman easy. Investigation revealed the fact that many of the ignorant whites of that region held to the same belief. In investigating Indian customs I found the same belief. The striped skunk is not an article of diet even among the Indians. In fact I have never known an Indian to regale himself on a diet of the mephitic little rodent voluntarily. The pregnant female however often raps Mr. Skunk on the head while he is drinking at a spring and concocts herself a savory stew of the flesh. It is interesting to note that she does it with the same idea of lightening the pains of labor as does her white sister. Did the whites get it from the Indians or *vice versa*? Do not imagine, as the popular belief is, that an Indian woman gives birth as easily as an animal. Such is far from being the case.

A CASE OF EXFOLIATIVE DERMATITIS

An intractable case of this stubborn disease, apparently autotoxemic in origin, with a discussion of the differential diagnosis, and some hints concerning treatment

By MILLARD F. CUPP, M. D., Metamora, Indiana

THE case here reported has given me, as well as two other physicians, considerable trouble. The photographs accompanying this will serve to enable my readers more readily to comprehend what follows in the way of description.

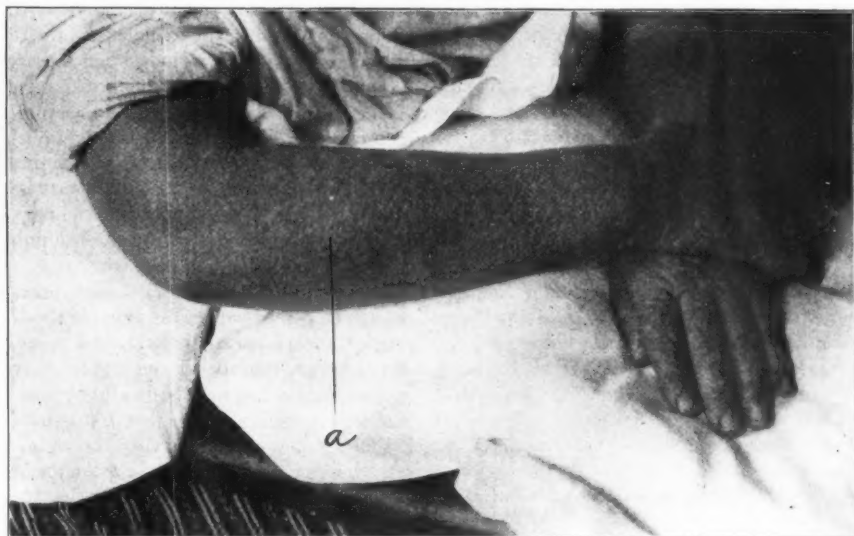
▲ A lady, aged 51 years, presented herself October 7, 1907, with the skin eruption as

shown in certain parts of the accompanying photograph. Her father died at the age of 40 of diphtheria; mother died at age of 65, no diagnosis having been given out—"the doctors refused to say what ailed her." The patient claims that there has been neither consumption nor scrofula in the family. She resembles her father most, is

of medium height and rather fleshy, with a fair complexion, blue eyes, and light-brown hair.

She passed the climacteric period without special incident, but had not felt well for a year before consulting me, and lists her trouble at that time under the comprehensive term of "rheumatism"—a term which, as is well known, may mean almost anything in the disease line. She related that about the 10th of August of last year there had suddenly appeared, first on the forehead and

the eruption was in the form of papules, aggregated into rows of chains, somewhat like mountain-chains in places, and irregularly disposed in other places. The natural furrows of the skin were exaggerated, giving to it the appearance of ridges, which mostly ran transversely to the long axis of the body. The papules were about one-eighth inch, or slightly less, in diameter, somewhat flattened at the summits, especially after they were a few days old, having on the top a few fine whitish scales.



Showing Dr. Cupp's case of Dermatitis

back of the neck, an eruption which she was assured by her friends was the eruption caused by poison-ivy, i. e., *rhus toxicodendron*. From the head and neck this eruption rapidly spread to and involved the chest, trunk and arms. It was attended by much discomfort—an intense burning and itching, with swelling of the loose areolar tissue about the eyes.

At the time when the lady consulted me the face was of a dull-red hue, with considerable swelling about the eyes; over the neck the redness was nearly uniform, but on the trunk it was interrupted by areas, mainly linear, in which there was an approach to the normal color of the skin. On the trunk

The appetite at this time, and for some time following, was very poor, the pulse was accelerated, and there was a distinct loss of vigor. The tongue was covered with a whitish fur, while the mucous membranes of the mouth were redder than normal. There has been, at different times since the onset of this disease, deficient action both of kidneys and bowels, and at the present time the latter can only be made to act by the persistent use of laxative medicines. The urine when last tested showed an abnormal quantity of bile coloring matter, but no albumen.

The treatment was begun by prescribing saline cathartics (magnesium sulphate) after

calomel and podophyllin, and with the thorough action of these medicines and a few days' exhibition of quinine marked improvement took place. I thought it wise to give the patient the benefit of the doubt in the matter of the quinine, as she lives in a spot which might well be malarious. In addition to this internal medication I prescribed a soothing unguent for local application after thorough bathing in alkaline lotions, and ordered the diet regulated, with the omission of meats, pastry, cakes, gravies, and highly seasoned articles in general.

I have tried, at various times, either on my own initiative or on the advice of my colleagues, a number of other substances and compounds, among which I may name benzoated zinc oxide ointment, diachylon (freshly prepared), ichthylol in various combinations, carbenzol (diluted and undiluted), and finally, a simple mixture of bismuth subnitrate, starch and vaseline. The latter has seemed to have a better effect than any of the others. Along with this I am using a lotion of chemically pure zinc carbonate and zinc oxide with a small proportion of glycerin. When this was first tried it reduced the turgescence of the tissues rapidly, with a large measure of relief to the patient, but with its continued use it has gradually lost power, and now the patient sometimes complains that it increases the distress. This has been one of the characteristics of the case from the beginning—what would give relief at one time failed at another or caused actual pain. Hence we have been more or less at sea with regard to the probable result of any proposed line of treatment.

When she began to show signs of increasing anemia she was given the tincture of chloride of iron, and this preparation was resumed once or twice during the period when she was too sick to remain out of bed. At the present time she can sit up the greater part of the day, but finds it necessary to lie down for a period almost every day.

A trial was made of arsenic in small doses, but the irritation and distress increased with such promptness and severity, with an early increase in the subjective distress, that it was abandoned.

As has been remarked above, this case at times made quite favorable progress and bade fair to recover within a reasonable time, but in every instance these lulls have been followed by a fiercer attack. On the whole, however, something has been gained, not the least being a greater degree of resignation and less importunity to be "got well quick," which we all know often defeats the very end aimed at in the treatment of chronic diseases. In addition to a serener frame of mind she is now able to eat with more relish and has gained somewhat in strength. There has been, on the whole, less distress, if we except certain periods when the acute action has manifested a tendency to return.

The physical characteristics of the eruption have changed markedly also, there now being less papulation, particularly on the body, where there is more or less uniform redness and swelling. The papular area is likewise different from what it was in the beginning, being of a darker hue and with a greater tendency to dryness. Also, the eruption is less interspersed with areas wherein the skin was of a more natural color. At a point on the extensor surface of the right forearm, about four inches below the elbow, and on the flexor surface of the left forearm at a point about opposite, that on the right, as shown in the photograph at "a," are the only patches that resembles the earlier characters of the eruption closely, though there is still a general resemblance.

The eruption on the face has never borne the papular characteristic.

In the folds of the elbows, the axillæ, on the chest, and on the lateral aspect of the neck there have occurred, repeatedly, circumscribed ulcers, which have left cicatrices like those seen on the neck in the situation designated.

The scalp is inflamed and scaly and much of the hair has fallen out, but in this situation the action has been at no time intense.

What Is It?

Now, the question of diagnosis has never been precisely clear, though from the first it has seemed to me to resemble lichen ruber more closely than anything else I can think

of. However, I want the brethren to examine the pictures closely and let us have the benefit of their opinion. With the exception of the points at which ulceration took place there has been no weeping at any time, but uninterrupted dryness, with the papular character persistent except where there was much loose cellular tissue, at which points there has been so much tumescence that papules could hardly have retained their shape for more than a few hours at best.

The palms and soles have remained clear, the skin soft, smooth and natural throughout.

It may be that I have inadvertently omitted some points which could be of interest to the observer, but if anyone would like to ask for additional information it will be cheerfully given.

As stated above, the first analyses of the urine showed little deviation from the normal, and I am asking the staff of CLINICAL MEDICINE to make a careful analysis, the results of which they will no doubt be willing to make known. Amount of urine passed is about 48 ounces in the twenty-four hours.

Finally I will state that, in my opinion, and I believe in that of the two physicians who have seen this case in consultation, there is a certain degree of gastrohepatic catarrh. For a time this was connected with a deficiency in the elimination of urinary excretas, but after she had taken boldine for a time this appeared to clear up. The specimen of urine submitted will show whether this condition still persists.

COMMENT BY DR. GEORGE H. CANDLER

I am not at all surprised at your inability to make a positive diagnosis here. Lichen ruber acuminatus (Kaposi) and pityriasis rubra pilaris are considered identical by Hyde and Montgomery. Under the second head these authors describe a disease of a "chronic, mildly inflammatory, exfoliating character and in which the characteristic lesions are fine, acuminate, firm papules situated at the mouth of the hair-follicles, displaying at the apex a horny plug, or scale, which dips into the follicle. This work contains an excellent

illustration showing distinctive papules with the plug on the back of the first joints of the digits. "As a rule," these authors say, "the disease begins insiduously, but may appear with or without mild systemic disturbance. As a rule the characteristic papules are not seen until after a period of seborrhoea sicca of the scalp, with or without palmar and plantar scaling patches." The disease usually is most marked over the extremities and on the back of the neck but may involve any or all parts of the body; "occurring over the hairy scalp the accumulated scales and crusts may form a dense and resisting cap." The nails are grayish-yellowish, longitudinally roughened and striated—"the little horny, blackish, conical papillæ covering the hair follicles occupying the dorsal surface of the first and second phalanges" are regarded as diagnostic and may be found when in all other parts of the body the identity of the papules has been lost in a general exfoliation."

Your case, it seems, can hardly be looked upon other than as a lichen ruber acuminatus (Kaposi)—the pityriasis rubra pilaris of Hyde and Montgomery.

Jackson and other writers use lichen pilaris and keratosis pilaris interchangeably to designate the above disorder. Crocker employs the term lichen spinulosus. There is at present a good deal of uncertainty and widely differing opinion regarding the lichens and psoriasiform dermatoses. In the past fifteen years some fifty different cases have been reported under as many differing names: lichenoid eruption, pityriasis lichenoides chronica, lichen variegatus, dermatitis psoriaformis nodularis, etc., etc. In each case the reporter has found some symptoms distinctly different from those appearing in the classical disorders, though in all the cases there were many common clinical and pathological features.

In Hebra's lichen-ruber cases death followed invariably. The Germans consider lichen ruber and pityriasis rubra pilaris distinct maladies, subdividing the latter into the two varieties, lichen acuminatus and lichen planus. This is probably correct. Your patient does not seem to present the

peculiar features of lichen planus or lichen ruber as met with in this country, though the two disorders may coexist. However, a number of variations from the regular type are met with. In pityriasis rubra the exfoliation is one of the most marked features, but you do not mention this as a symptom. The majority of the cases end fatally (see Hyde and Montgomery). Few cases have been reported here, and these were mostly males.

Is it Autotoxemic in Origin?

Frankly, we are inclined to look upon this as a peculiar exfoliative dermatitis (due to autotoxemia) similar in character to the disorder noted in the summer and autumn of the year 1891 in London. Savil contributed an excellent monograph on this subject (with illustrations), and the description he gives fits your case to a nicety.

The term parapsoriasis lichenoides might perhaps be used to describe the affection—the features presenting being between psoriasis and lichen planus. Here we have papules such as you describe; there is little if any infiltration of the skin; the disorder persists for months or years; it resists treatment and may markedly affect the general health, or the depraved condition (systemic) may cause the persistence of the dermic disease. The hair falls, but there is no marked crusting, while the nails, palms and soles are not affected markedly until late, if at all. The face may be edematous, but does not at any time present papules, and the latter gradually become less and less clearly defined, till at last they can be distinguished only about the flexor-surfaces of the upper extremities. Fine scales (inclined to be adherent) are present but do not at any time become very obvious: the “translucent horny covering,” which gives the flat-topped angular or polygonal papules of true lichen planus a “varnished” look, is lacking here. The skin in the latter malady remains pigmented after involution of a crop of papules, presenting a “smoky sepia-tinted or even blackish appearance.”

In the exfoliative dermatosis under consideration we may have involvement of the

entire body, the skin being reddened, rough, more or less scaly with groups of papules here and there. General health may or may not suffer, itching may or may not be severe. In some cases the disease disappears slowly after months, in others it persisted till death. Arsenic almost always caused increased severity of symptoms. A condition somewhat similar to this was described by Brocq as “lichenification.” He says, “it shows a tendency to recur.”

It would seem that this entire subject requires very careful revision. Physicians encountering peculiar dermatoses should first thoroughly familiarize themselves with the classic clinical pictures and then note minutely differences in type of eruption or course of disorder. Such cases should always be reported. In this instance the study of Von Harlengen, Hyde and Montgomery, and Crocker, will prove of interest. The last-named author deals exhaustively with the various forms of lichen, but his descriptions do not fit the present case.

The presence of furuncles, localized abscesses (as described by yourself) or gangrenous areas is not uncommon in older cases. Sloughing areas may be caused, first, by pressure and friction, secondly, by streptococcic invasion.

The etiology is at best problematical, but deranged metabolism with retention of waste must be regarded as basal causes.

The prognosis is guarded at best. The patient's general health must be poor or the disorder would not present. If the lesions are circumscribed and elimination is stimulated early, cure may result, but when the whole body is involved, and one of the most active eliminative organs inactive, the great strain thrown upon liver and kidneys must sooner or later tend to set up serious organic disease. The heart suffers after a time, and the patient, becoming anemic, thin and despondent, is likely to fall a victim to some seemingly trivial complaint; or he may grow weaker and weaker, develop nephritis and die in uremic coma. Rarely there are periods of well-being (this usually in active patients and in summer) which are

followed by an exacerbation and lowered power of resistance.

Treatment of These Cases

Common sense will tell us that primarily we must "clear out and clean up"—not alone the *primæ viæ* but the body generally. Then we must see to it that each and every organ does its work, while protected from receiving more material than it can dispose of properly. A careful examination of blood and urine will most likely reveal much, and we shall have to furnish the body with proper nutritive pabulum and, perhaps, an excess of some needed reparative material. Enough food to supply the body's necessities; no more. The right kind of food; nothing else. Exercise to the limit of tolerance, gentle, but forced, elimination—renal, intestinal, dermic. These are the basal pillars of our therapeutic edifice.

The skin, first of all, must be cleansed with a warm solution of magnesium sulphate. Into a gallon of water throw a double handful of wheat bran; let this boil, strain, then add 4 ounces of magnesium sulphate. To each pint add 4 drops of creolin. Sponge the body with this and then apply with gentle friction a little cold-cream. Repeat this daily. Wash out the bowel every other day with a warm salt solution.

The patient should walk a short half mile before taking food; an hour after eating make him get out again. If unable to do this let him exercise in his room with open window or have someone else exercise his limbs, this to be followed by massage if patient is very weak. Order light nutritious diet of eggs, fish, poultry, milk products, fruit, vegetables. Whole-wheat bread and other cereals. Lime and iron with other "cell-salts" are needed imperatively. Vibra-

tion and light faradic treatments may be applied by those who know how. The therapeutic (high-power) lamp would be of service in most cases.

Medicinally certain remedies are positively indicated at the outset, but here, if anywhere, medication (to be effective) must be so applied as to meet the pathological conditions present. These must of necessity vary in even a single case from time to time. However, calomel and iridin will certainly be indicated to insure hepatic activity, free stools and increased elimination of waste, giving 1-3 grain of each hourly for four doses, every third night, with a strong saline laxative next morning. Nuclein, 10 drops (under the tongue or hypodermically) twice a day, will prove an effective reconstructant, while xanthoxilin, gr. 1-3, stillingin, gr. 1-3, boldine, gr. 2-67, every three hours, will ensure the elimination of the effete products of active cell-reconstruction. Calx iodata in small but repeated doses will instantly suggest itself to the thinking therapist. I should give 1-12 grain on an empty stomach four times a day. Quassin will make the patient eat all he should have, and if digestion is at fault (as it usually is), papayotin will be called for. Finally, the sulphocarbolates of lime, zinc and sodium—alone or in combination—will be needed "to effect" to prevent putrefaction of the intestinal contents and further absorption of toxic matter.

With this foundation to build up on the doctor who will use his good common sense will find even such a peculiar case as the foregoing to yield to treatment. After all, we do not medicate named diseases but conditions.

Comment and further reports from the readers of this journal are desired.

No man shall place a limit in thy strength;
Such triumphs as no mortal ever gained
May yet be thine if thou wilt but believe
In thy Creator and thyself. At length
Some feet will tread all heights now unattained
Why not thine own? Press on; achieve! achieve!

—Ella Wheeler Wilcox

DIFFICULTY OF STOPPING MORPHINE-TAKING

Some of the reasons why the morphine-habit fixes itself so strongly upon its victim, and why its discontinuance entails so much suffering; with the indicated treatment

By WILLIAM F. WAUGH, A. M., M. D., Chicago, Illinois

WHY is it so hard to break the habit of morphine? To stop the use of tobacco, or even of alcohol, when one has become firmly grounded in their daily use, involves an effort of the will. It may be hard, especially to those who are accustomed to gratify their desires, right or wrong, regardless of their own well-being. But after all, it is simply a question of the will, and justly one is looked upon as a self-indulgent weakling who cannot stop the use of these things when it has been made evident to him that it is the right and proper thing to do.

The Desire There, But the Will Weak

With the morphine-habit there is by no means such an exercise of will-power demanded in quitting the use of this drug. Many an unfortunate may ardently long to free himself from his chains; the will is there, the desire is there, but the ability is absent. As soon as the accustomed drug is discontinued, trouble begins. It is not mental; it is physical, and downright difficult, suffering at that. Aching, crawling, headache, neuralgia, and numberless other symptoms come to head off the unfortunate victim in his dash for liberty and relentlessly crush him down to his dungeon. I repeat, and desire to emphasize the statement, that there is no lack of will-power to prevent the morphine-habitue ceasing the use of that drug, but downright physical suffering, sufficient to daunt the strongest man on earth.

Curiously enough the greatest suffering is not due to pain. Time and again I have had patients say to me, when they were making the greatest complaint, that they did not have an ache or pain, but instead of that an indescribable sensation for which

pain, however severe, would be actually a relief. In one case, a man who suffered the worst form of pruritus and I have ever known said that perhaps after all it was a good thing, since it diverted his mind from the sensation to which I refer. One would think that when the treatment for the prevention of suffering had succeeded in so far that the patient had neither ache nor pain, never missed a meal or went a single night without sufficient sleep, he would have nothing of which to complain; but this is not the case—even when this has been accomplished the patient still complains of this “indescribable sensation.”

The Causes of Suffering

The causes of the suffering endured when the habitual morphine is withdrawn are twofold: In the first place, the nerves have long been benumbed by the constant use of the drug. When this influence is removed it is quite natural that the returning sensation is exuberant, and that general hyperesthesia should occur. That this is the case is evident from the fact that even the special senses are more acute than usual, the sense of hearing and smell, as well as those of ordinary and special tactile sense are hyperacute. Patients tell me that they can hear the slightest whisper from one end of the house to the other, and recognize the approach of any member of the household by the odor. The sense of taste is likewise affected, so that richly seasoned articles of food excite distress and comparatively tasteless articles are relished as they would not be in the state of health. Hyperesthesia is a constant element and must be reckoned with.

The second element, however, is much the more important, and is possibly to a

certain extent the cause of the hyperesthesia. I refer to the toxemia present. The hypothesis which I proposed a year ago is that, owing to the action of morphine, toxins are retained in the cellular elements of the body. As the cells become super-charged with toxins of various and unknown nature, larger and still larger doses of morphine are required to prevent the overflow of these toxins into the circulation, there to become active. When the morphine is stopped, this inhibition ceases and the stores of toxins are poured out into the circulation. To these I attribute the withdrawal-symptoms.

What is the Remedy?

The remedy is obvious: The morphine should be slowly removed and elimination established, so that as fast as the toxins come into the circulation they may be carried out of the body. If this theory is correct, we ought to be able to remove the morphine with practically no suffering whatsoever; for, elimination preceding the withdrawal of the drug, the latter should be prolonged as much as necessary; until, the entire surplus of toxins having been carried out of the body, no morphine whatever is needed.

This is an ideal. Can it be realized?

Every case that presents itself is a new problem, since the toxins which are thus stored in the body are by no means always of the same variety. A close study of many patients convinces one that every patient has his own particular brand of toxins, which he retains in his body.

The difficulty is to distinguish between the sensations actually due to the presence of toxins and those which are strictly subjective in their nature. Experience here is the only guide. Those who have conducted

hundreds of these cases through the time required for a cure are able to form a pretty close estimate of what suffering is true and what is imaginary or, rather, autosuggestive. We must do these patients justice, and not confuse the two. Autosuggestive troubles are just as painful, just as difficult to endure, as those which have a distinct organic origin. It is not always easy to fit the method of elimination to the toxins which present their characteristic symptoms; nevertheless, the general rules of eliminative therapy are applicable, and will be found in the main sufficient. The main point is that we should not be in too much of a hurry to deprive the patient of that one drug which always restrains the suffering, be it what it may, and inflict unnecessary suffering in our anxiety to get rid of it too quickly. Time must be given, and I am firmly convinced that when a case is managed properly, the suffering may be reduced to a negligible point. Whether it is always wise to do this depends on the individual. Take the case of a physician who had formed the habit through devotion to his profession, to enable him to attend to his patients when he would be otherwise unfit; or of one who has acquired the habit through the indiscretion of the physician in allowing the continuous use of morphine through a painful disease; and the case is altogether different from that of some young degenerate who has gotten into the habit out of sheer curiosity. In the latter case pain is a therapeutic agency of distinct value, whose application produces beneficial results which cannot be secured from any other means known; and the value of pain should therefore not be underrated by the practitioner.

In case of doubt, let mercy rule.



THE THEORY OF HOMEOPATHY

This article is the synopsis of lectures delivered at the
New York Medical College for Women, in 1907.
It gives a complete outline of homeopathic doctrine

By P. W. SHEDD, M. D., New York City

Associate Editor, American Journal of Homeopathy

THE cultivation of a beneficent militant spirit is desirable in students: the spirit which seeks out error to demolish it, and which has a keen blade ready in defense of truth. This demands a knowledge both of truth and error, both good and evil; when to engage actively an opponent who can and will recognize facts, and when to lose both hearing and speech in the presence of a fool.

Let us first acquire and agree upon certain technical terms. The old saying, "what is one man's meat is another man's poison," will never do in the theory of any science; meat must equal meat, and poison, poison, else we are soon in turmoil.

Original Meaning of "Homeopathic"

The original application of the term, homeopathic, related to the use of drugs, and this is still its broad professional application; the use in proper dosage in disease of drugs, which, when administered to organisms in health, artificially produced a drug-disease or picture or syndrome similar in many important points to the natural disease-syndrome under consideration.

The drug-disease, or disturbance of vital equilibrium, thus produced in the healthy is termed the pathogeny, or pathogenesis, of that drug, and once established, is valid for all time. The indications for aconite, belladonna, bryonia, etc., established by the pathogenies of Hahnemann and his contemporaries will never be improved upon in their essentials, and will serve the human race *ad infinitum*.

Before proceeding to other than homeopathic uses of drug-substances (uses which are also demonstrable, and with which we must be acquainted), we might consider what it is that returns a diseased body to

health. Disregarding the numerous helpful factors of hygiene, sanitation, careful nursing—all or any of which, when lacking, tend to malequilibrium, or imbalance—we are impelled to regard as the greatest factor, not the administration of drug-substances according to any known law, but, the primal, genetic impulse of the human or any other organism, inherent, ancestral, reaching through countless evolutionary years, perfected and strengthened by its battles with the elements to attain and retain its type: all of which may be gathered together under the term, vitality, vital force, life.

Drugs are Adjuvants—not Cures

Let us take the case of two individuals of similar type, strength and health—twin brothers—we may say, attacked with variola. Here we have a contagium impinging equally upon the two individuals. One is given the aid of everything but drugs; the other receives in addition the indicated remedies in proper dosage. Both recover; probably the latter first and best. The essential point, however, is that they get well; and the massive force which led them thereto was the vital force, the *vis medicatrix naturæ*, unaided or undirected in the one, scientifically aided or directed by drugs in the other. A drug, then, does not cure a disease; it is adjuvant, sometimes marvelously so, to nature's efforts to keep on the right track or to get back upon it; but the propulsive force, the healing, or equilibric, force, is profounder than any drug, and lies hidden in the mystery which we call life.

Having thus got the chiefest therapeutic factor into proper perspective, we may turn to our adjuvants, in this case, drugs. Are there laws governing the use of drugs, or is it all empiricism, guesswork? And what is

law, a law in science? Law in the legal sense does not exist in science. Legal law, or jurisprudence, is merely a *modus operandi*, a custom, which experience, sometimes bloody and cruel, has shown to subserve best the interests of some community. A man cast upon a desert island has no law save that of self-preservation, and needs none; but, a half dozen or more soon find that some regulation of right and property is essential to the general well-being, and "laws" are evolved. Another island, also peopled, might evolve "laws" suited to their communal comfort, but differing greatly from the first island-code.

Not so, precisely, in science, although the sociologic "laws" just mentioned may be developed according to the scientific principle. Law here presupposes and demands absolutely a mutual interdependence, an unvaried and dependable reaction, between two things or facts or series of facts. Law "unto itself" in science is more incomprehensible than infinitesimality; it is an incarnation of the impossible; an archimedean lever which moves no world because the fulcrum is lacking. Law is but the expression, more or less accurate, of a certain relation between parts, between facts, between series of facts; no more, no less; nor does the existence of one law negate the presence of others.

Therefore, to permit the expression (or the existence) of a scientific law, we must have two series of phenomena which present a constant relation with one another, which relation we term the law governing their interaction.

Antiquity of the Homeopathic Law

That there exists a law of drug-action, termed the homeopathic law, was noted by Hippocrates, and it has been verified in the last century of clinical experience thousands and thousands of times. Appreciation of this fact may be gained by utilizing the pathogenic syndrome of some well-known drug, e. g., aconite, belladonna, bryonia, in morbid states presenting a similar syndrome.

There is also another law, equally demonstrable, the antipathic, or the law of *contraria*

contrariis curantur (or *curentur*). This must be understood, first, that we may appreciate the value, immeasurably greater, of the homeopathic law; secondly, that we may learn its indications. Drugs used antipathically must be essentially powerful medicinal agents, and the dosage extremely large when compared to the required homeopathic dose of the identical substance; their indications do not permit of individualization, but are generic in type (although often directed against a single symptom, e. g., opium in insomnia or pain).

To illustrate this law most broadly, two drugs may be chosen: an excitant, *nux vomica*; a depressant, *gelsemium*. *Nux vomica* (or strychnine) is the standard tonic of the old school for asthenic, atonic conditions, debility, weakness, irregular and subnormal function of involuntary muscular tissue, indicating an exhausted nerve-force; atony of the gastrointestinal canal (not in irritable conditions); in labor to tone up the uterine muscle; in cardiac debility and functional irregularity; always the excitant agent against the contrary condition of torpidity. *Gelsemium* is depressant, paralyzant. It subdues all forms of neural excitation of whatever character or wherever located. It inhibits excessive nerve-action. Neural irritation, whether direct or reflex, comes uniformly under its influence. It is not the remedy where asthenia prevails; it is contraindicated where the circulation is feeble and there is tendency to congestion, especially if there be feeble circulation in the nerve centers. It is never given (antipathically) if the eyes are dull, the irides dilated, the countenance expressionless. In such cases it may prove fatal in quite moderate (antipathic) doses. The antipathic use of drugs is but palliative or harmful in most chronic cases, of comparatively uncertain benefit in most acute conditions, and is best suited to the needs of the emergency or ambulance surgeon.

Meaning of the Term "Allopathic"

The term, allopathic (*allos, alloios*—other, another) should also be understood and properly used. There is no allopathic law; allopathy is merely a method, the method

of derivation, of pukes and purges, of diaphoresis, diuresis, mustard plasters—in other words, a method of attacking or exciting the sound parts of the body for the purpose of relieving by derivation the diseased parts. Nature sometimes resorts to this method by establishing in certain chronic conditions a running sore or a fistula, which, if closed up surgically and not cured internally, i. e., by removing the cause, may soon lead to a death certificate. The allopathic method was monstrously in use in Hahnemann's day, venesection, purging, emesis, for example; hence the frequent appearance of the term, allopathic, in the older homeopathic literature. Nowadays the extra-homeopathic part of the medical profession, where they use drugs (many of them have, through bitter experience, become drug-nihilists) practise rather according to the antipathic law, which is a law, however limited in its scope.

Biochemic is a term not infrequently used. Biochemistry, or the chemistry of life, cell-life, is based upon the theory that disease is due to or permitted by a lack of certain tissue-salts which are normally present in the various cells: phosphates of lime, soda, potassium, of iron, of magnesia, the chlorides, sulfates, etc. Biochemistry, then, is a theory of cell-dietetics. It is a theory, not a law; but the indications furnished in its therapeutic system for the use of these tissue-salts so closely correspond with such homeopathic pathogeneses as exist, that their administration becomes practicable. But, if we consider that a biochemist negates the value of such remedies as belladonna, mercury, nux, lachesis, gelsemium, with their clear-cut indications, we perceive the limitations of theory, and are led to a deeper appreciation of inductive science and a law-governed therapeutics that holds within its grasp not only tissue-salts but every potent agent, and which metamorphoses poisons and toxins into implements of good service.

Another term may be alluded to finally, the term, isopathic (*isos*, the same; *pathos*, disease). There is no such thing as isopathy in therapeutics. If we use tuberculin in tuberculosis, we are not proceeding

isopathically but homeopathically, for we have made quantitative, if not qualitative, alterations. In the "Organon" (note, p. 42, Dudgeon) we find the familiar example of a frozen limb being restored to health by rubbing snow upon it. The isopaths claimed this as an example of isopathy; Hahnemann cites it as a homeopathic cure; it is actually antipathic (let us give the devil his due!), i. e., the cure takes place from the application of a mild degree of heat supplied by friction and the melting snow to the frozen part, and this gradually and safely allows the return of tissues to a normal condition.

We are now ready to enter upon a consideration of the theory or philosophy of homeopathy, or better expressed, the investigation of the laws and procedures governing the therapy of drug-substances used homeopathically.

Hahnemann's "Organon"

In the study of homeotherapeutics we naturally turn to the "Organon"—rarest of all phenomena, a medical work whose practical value time does not and cannot lessen. Treating as it does of that most recondite, intricate subject, the human organism, it rests upon the sure foundation of precise observation of nature, followed by an inductive logic whose conclusions are irresistible and stable as long as the human type which it considers remains the same. This statement does not, however, imply absolute perfection either in Hahnemann or his work, which after all is but a portion of the science of medicine. Nevertheless, the indiscreet (or very wise) old-school man, once caught in the cogwheels of its facts and logic, cannot well escape without losing whatever respect for scientific truth he may once have possessed. It may be allowed, though, that certain minds, even of brilliant endowment, cannot perceive truth in certain forms. An example is Dr. Oliver Wendell Holmes, who many years ago predicted the early disappearance of the homeopathic system of drug-therapy. Today the laboratories of the world are formulating in their technicology the homeopathic law. Simon of Paris (*Journal de Physiologie et de*

Pathologie Generale, Sept., 1903; *Archives de Medicine Experimentale et d'Anatomie Pathologique*, Nov., 1903) says, in investigating the method of operation of diphtheritic antitoxin, that "the pathologic modifications, which seem to evolve a little more rapidly in the rabbit than in man, are identical with those noted in benign diphtherias recovering spontaneously. It is the same evolution, but shortened. Judging from the blood examination, the serum creates a dwarf disease (*une petite maladie*, i. e., similar) which aborts." And Prof. von Behring, of antitoxin fame, has recently made the following curious statement:

What Behring Says

"The scientific principles of this new tuberculo-therapy are yet to be established, just as the scientific principles of my antitoxic serum-therapy remain to be explained, notwithstanding the assertion by many authors that the therapeutic action of my diphtheria and tetanus antitoxins is clearly understood since the promulgation of Ehrlich's side-chain theory. For speculative minds the new curative substance will undoubtedly become a most interesting object of scientific investigation, but I do not believe that medicine will profit much by it. In spite of all scientific speculations and experiments regarding smallpox vaccination, Jenner's discovery remained an erratic block in medicine till the biochemically thinking Pasteur, devoid of all medical class-room knowledge, traced the origin of this therapeutic block to a principle which cannot better be characterized than by Hahnemann's word: '*homeopathic*.'

"Indeed, what else causes the epidemiological immunity in sheep, vaccinated against anthrax, than the influence previously exerted by a virus *similar* in character to that of the fatal anthrax virus? And by what technical term could we more appropriately speak of this influence, exerted by a *similar* virus, than by Hahnemann's word: '*homeopathy*'?"

"I am touching here upon a subject anathematized till very recently by medical pedantry; but if I am to present these problems in historical illumination, dogmatic

imprecations must not deter me. They must no more deter me now than they did thirteen years ago, when I demonstrated before the Berlin Physiological Society the immunizing action of my tetanus antitoxin in infinitesimal dilution. On that occasion I also spoke of the production of serum by treating animals with a poison which acted the better the more it was diluted, and a clinician, who is still living, remonstrated with me, saying that such a remark ought not to be made publicly, since it was grist for the mill of homeopathy. I replied: Gentlemen: 'If I had set myself the task of rendering an incurable disease curable by artificial means, and should find that only the road of homeopathy led to my goal, I assure you, dogmatic considerations would never deter me from taking that road.'

The words of a poet, other than Holmes, might aptly be quoted here:

The mills of God grind slowly, but they grind exceeding small;
Though with patience He stands waiting, with exactness grinds He all.

The "Organon" is not impeccable. If rewritten by Hahnemann today there would be alterations, betterments, just as he changed the various editions of the book with a growing experience; but, in this regard consider the dark ages in which it was formulated; the venesection, pukings, purgations, polypharmacy, a therapeusis against which he lifted up a voice and which are not yet impotent.

Nowadays the best old-school prescribers use a single remedy and are willing to wait its action, whatever that may be, or else are content with the adjuvants of proper food, light, air, nursing, hygiene, leaving vitality to solve its own problems. Their textbooks have comparatively little to say on drug-therapy.

The Ideals and Motives of Hahnemann

Hahnemann was animated by two energies: First, the philanthropic, or love for his fellow men, an impulse, or dynamis, which characterizes all true physicians of whatever age or "school," and which is best expressed in the simple phrase, "they serve as best they may." This moral or heart-im-

pulse may be combined with a less or greater degree of intellectuality; in the case of Hahnemann, with the greatest intellectuality. and here we find the second irresistible impulse, or dynamis, which drove him onward, namely, the philosophic.

Philosophy is a much-abused and often little-understood term. Let us hark back to lexicography and define it. Philosophy is a knowledge of phenomena as explained by and resolved into causes and reasons, powers and laws. A philosopher, then, in any sphere is an inductive logician dealing only with facts but seeking and demanding with all the powers of a finite intellect the causes and reasons, powers and laws governing or related to these facts. Hence, we have Hahnemann, the philosopher, as distinguished from the medical theorizers whom he flays in the note to Section 1 of the "Organon." On the high and dusty shelves of medical libraries you may unearth thousands of these theories, and they are still in the process of accretion. Hahnemann's philosophy, however, remains a vitalizing and inexhaustible force, still the most perfect example of modern inductive science in the therapeutic domain.

Bearing, therefore, in mind the chiefest factor in the restoration of a diseased organism to health, namely the inherent vital force and tendency toward health or equilibrium; recognizing the utility and place of various remedial factors such as surgery, the therapeutics of light, heat, electricity and other agents; admitting also that there is an antipathic law governing the action of drugs, but generic in type and therefore of limited scope, we may proceed with the philosophy of homeotherapeusis, subdivided as follows:

1. Natural Disease.
2. Drug-disease, or Pathogenesis.
3. Primary and Secondary Symptoms.
4. Potency; Repetition of Dose; Alternation; Homeopathic Aggravation.
5. Acute Diseases.
6. Intermittent or Alternating Diseases.
7. Chronic Diseases: Psora, Syphilis, Sycosis.

1. *Natural Diseases.*—"The physician's high and only mission is to restore the sick

to health, to cure, as it is termed." Thus begins the "Organon." What constitutes sickness, and what is involved therein? . . . apparently simple questions which soon lead the careless thinker astray. For centuries disease was universally considered "as a thing separate from the living whole, from the organism and its animating vital force, "a devil to be exorcised, an entity to be purged out, sweated out, to be drawn off in the venesector's basin; and medicine pursued a devious, cruel and bloody path in its unphilosophic, unscientific endeavor to relieve.

The proximate cause of a disease, whether it be moral or corporal, bacteriologic, telluric or atmospheric, is not absolutely the disease nor that totality whereupon the physician, confronted with an organism suffering from imbalance, concentrates the entirety of his homeopathically curative effort. A person suffering from tuberculosis, whose vital organs may be sown thick with tubercles, presents these as the proximate, or excitant, cause of his disease, but the primal cause lies in a receptivity acquired by ancestral or personal sins against the laws of his being. Preventive medicine is the aim of modern science, whereby these proximate causes may be removed from organisms of acquired or ancestral receptivity, thus, "leading them not into temptation," and it demands the cooperation of all physicians; but homeopathic science is peculiarly able to meet and combat the primal causes of disease under the most disadvantageous circumstances; and when the organism is restored, even approximately, to its pristine vigor, it exhibits marvelous defensive and offensive powers against infection.

[This presents the case for homeopathy—the balance of the article appearing next month. As you all know, we are not homeopaths, yet we believe in giving the homeopath a hearing. But after this we will give "the other side" a chance to reply. This discussion is one that we can not continue indefinitely, so only one or two papers can be used. Who will submit the best answer?—ED.]

(To be continued)



A VISIT TO THE MAYOS'S CLINIC

The story of a brief pilgrimage to Rochester, Minnesota, showing what is being accomplished by a brilliant group of American surgeons and physicians in an out-of-the-way country town

By W. F. CHURCH, M. D., Greeley, Colorado

TO be fully up to date it is now considered necessary to make a pilgrimage to Rochester, Minnesota, at present the Mecca of American Surgery, and there sit at the feet of the two Mayo brothers and marvel at their wonderful work. The idea that these men best represent the highest accomplishments in technic and results in American surgery seems to have pervaded the surgical mind of Europe, for famous surgeons across the Atlantic pass by the great medical centers of the East, or maybe just tarry briefly on their way to a small little-known city in the great Northwest.

The Mayo's Clinic the Chief Attraction

Before the train reaches Rochester the casual observer will usually discover that a majority of the passengers are bound for that city. This is said to be the case on all trains, no matter from what direction. There are apparently few trains that do not bring a visiting surgeon and a number of patients to this town. The city of Rochester is no more attractive to the average traveler than hundreds of other towns with a population of from five to eight thousand, but it has the unique distinction of being made famous by two surgeons who are greater than their native city.

The Mayos are the chief benefactors of the city and its chief attraction. They have

stemmed and reversed the current of surgical cases setting toward the great cities and directed it toward their own little town. It has been no little task to prove to people that the highest skill can be found elsewhere than in a metropolis.

One of the first things to do on entering the town and registering at the Cook House, a hotel with excellent accommodations, was to learn the location of St. Mary's Hospital where the Mayos operate and the hour when work begins, which was found to be at eight o'clock in the morning.

St. Mary's Hospital and Its Operating Rooms

St. Mary's Hospital is not particularly imposing in comparison with like institutions in large cities, but it is beautifully located at the west end of the city, the country ahead being not only pleasant to look upon but affording an abundance of untainted air. Its capacity is 180 beds, all used for surgical cases. The operating rooms, two in number, with a sterilizing room between, are located on the fourth, or top, floor, fronting to the north, so that light is quite uniform. An adjacent room is used as a waiting room by visiting surgeons. Here men from many sections of this country as well as Canada meet on common ground. They are all learners. Here is found the would-be sur-

geon, the man of moderate experience and the expert operator. Not one of them can go away without having gained information.

When preparations for an operation are completed a bell is touched to summon the visitors, who file into the room and mount the L-shaped platform made of steel with large connecting brass tubing for railing, furnishing two rows of seats, the rear considerably elevated above that in front. An excellent view is thus afforded of operations not performed in deep cavities. Both surgeons may be operating at the same time and the visitor may select the operation that he cares most to see performed. Most of the time, however, while one surgeon is operating, a patient is being prepared in the other operating room, so the visitor can, by passing first to one then the second and third room, witness from two-thirds to three-fourths of the operative work of both men. If all operations could be performed in the same length of time all could be witnessed, but a prolonged operation breaks the alternation.

Method of Anesthesia

In most, if not quite all, other hospitals in which I have witnessed the procedure it is the custom to anesthetize the patient in a room adjacent to the operating room. In St. Mary's Hospital the patient, if able, walks into the operating room, from which visitors are then excluded, and is thus given a chance to view the surroundings with the view of allaying trepidation and fear. Ether is the anesthetic of choice and is given by the drop-method by a trained nurse thoroughly versed in anesthetizing. Nurses are preferred to doctors for this work as they are less liable to neglect their work because of interest in the operation. This clinic is entitled to much praise for what it has done to popularize the drop-method of giving ether. In 1906 out of a total of 3915 operative cases ether was administered 3853 times.

The Preparation of the Patient

The work of scrubbing and preparing the patient is begun before the subject is fully

anesthetized, which probably serves to divert his mind from the ether. No elaborate preparations are made previous to entering the operating room. The night before the operation the patient is given 2 ounces of castor oil in a little beer and is also shaved and bathed. After he is placed on the table the field of operation is washed with warm water and soap, a gauze pad being used for scrubbing. The parts are then cleansed with a 1:2000 bichloride solution, after which a gauze sponge saturated with Harrington's solution is placed on the site of the incision for 30 seconds. After this is rinsed off with 70-percent alcohol and sterile towels have been placed and secured on all sides of the field the operation is begun.

Every visitor not previously instructed and not knowing what to expect is astonished at the amount of work done. It seemed to be a very common experience to operate on 20 patients in a day. One day I saw 23 cases posted for operation. In 1907 there were 4811 operative cases in the hospital, an increase of nearly 900 over the number of the previous year. According to one visiting surgeon who had come to Rochester several times the clinic had doubled since his first visit of five or six years ago. It must be borne in mind that while other surgeons operate two or three days in the week the Mayo brothers operate six days in the week. I did not learn whether they stopped for holidays.

The Class of Operations

There is a great variety of operations, covering in a year's time nearly the entire broad field of major surgery. The results of operations on the gall-bladder and biliary ducts, partial gastrectomies and gastrojejunostomies and extirpation of the prostate and thyroid glands have perhaps attracted the greatest attention of the surgical world. Doctors come long distances for operations on themselves. I saw an ex-president of the Ohio state medical society who was recovering nicely from a bile-duct operation, and a surgeon from central New York who was convalescing from an operation in the same locality, while a Kentuckian (born in Virginia)

was waiting for the final decision in diagnosis.

As nearly all of the patients are able to come to Rochester by train and some of them long distances, it can readily be understood that only a small minority are in an acute stage of disease. Out of quite a number of appendectomies I saw only one that had pus. Evidently the fulminating or gangrenous forms are rarely met with. The surgeon who meets with acute cases in every stage cannot hope to attain the percentage of recoveries reported on operations between attacks. In St. Mary's Hospital clean cases of appendicitis are allowed to leave on the eighth day, while gall-bladder cases leave about the eleventh to the fourteenth day. Surprisingly quick results has been a distinctive feature of the surgery done at Rochester.

The daily operative work is usually not completed until one to two o'clock in the afternoon, when everybody is tired or at least slightly fatigued. Taking my own feelings as a cue I wondered how the operators felt.

The Surgeons and their Diagnostic Staff

It does not take one long to learn that the celebrated surgeons have their offices only a block away from the hotel and that. Drs. W. J. Mayo, C. H. Mayo, Judd, Graham and Plummer are the members of a firm equipped to combat any disease on earth. Drs. Graham and Plummer are internists. The firm, so I understand, employ a corps of about twenty physicians, largely for the purpose of diagnosis. On reaching Rochester it is necessary for a patient to go to the office and register, when his case is taken under consideration. It may be two days or two weeks before a final decision is reached. The number of people was a surprise to the uninitiated. I was told by one of the employees that some days there were two or three hundred in attendance for consultation. It must not be understood that these are all new patients for some must come for several days before an operation is decided upon. Since last summer there were at least a thousand

new patients each month. Of this number only about two out of five were finally operated upon.

It is well known that a man may be a good operator but a poor diagnostician, and the time spent in operating is very short compared with the time spent in diagnosis. With their trained assistants the Mayos are able to employ all known methods of arriving at a conclusion. If the benignancy of a tumor incised in the operating room is doubtful the expert pathologist reports in a few minutes and operative procedure is carried out as needed. One stops to wonder whether a lone surgeon can compete with such a trained body of men, and one also wonders what would happen if capitalists should decide to start a great institution and employ experts in every line and highly trained operators. Medical journals might have something to say about surgical trusts. Of late the small hospital and the occasional operator have been gaining ground. Which system will gain the greatest headway during the next decade?

I asked a surgeon who had spent some time at Rochester and who further claimed the honor of having visited the chief clinics of this country and Europe what he thought of the clinic at St. Mary's. "The finest in the world," he replied.

I do not care to dispute his statement. If there is any place in this country and Europe where more or better surgery can be seen than at Rochester in a week's time I do not know where it can be found.

The visitor to Rochester cannot soon forget the courtesy extended him in being permitted to witness such fine examples of surgical art.

[The remarkable success of the Mayos's clinic, so it seems to the writer, must be ascribed in part at least to the wonderful organization of its clinical and diagnostic staff and the perfection of detail with which it is enabled to grapple with every problem, so that the element of guesswork is eliminated so far as this is possible, *before* the operation instead of *after* it. In other words' this institution is a triumph of co-

operation. What this group of physicians has succeeded in doing by working together to a common end, other physicians can do, even on a smaller scale. In our opinion this article emphasizes the possibilities of such a division of labor as is proposed in

Dr. Gordon G. Burdick's scheme of "Medical Partnership," about which he told us in last month's *CLINICAL MEDICINE*. The subject is, we believe, a most important one. We should like to have a discussion of it by the "family."—Ed.]

A CASE OF SELF-CASTRATION

An interesting description of a case of self-mutilation, the patient being a religious zealot. The method of treatment pursued

By A. E. A. MUMMERY, M. D., Saline, Michigan

MR. L. T., age 24, married; occupation, rural mail-carrier. First call, Nov. 6, 1907, 11:10 p. m. Found patient in a semiconscious condition due to loss of blood; no radial pulse; heart action, 130; temperature, 97.4° F. He was lying in a pool of blood coming from a wound in the scrotum, caused by removal of the left testicle, the cord being cut within the tunica vaginalis.

I immediately applied pressure over the cord in the pubic region, and after removing clots with the finger, I caught and tied the vessels with chromicized catgut. The sac was then irrigated with hot 1:1000 solution of alphazone. The active hemorrhage being controlled, the cavity was packed with 10-percent iodoform gauze, and a tight bandage applied. The heart was stimulated with 1-60 grain strychnine sulphate, hypodermically, and pain controlled with one hyoscine-morphine-cactin tablet. A normal salt enema was also given. Hot-water-bottles were applied, and in an hour the enema was repeated, the patient's condition improving. Pulse, 114 and stronger, and the temperature 98° F.

In two hours, heart action still improving and patient asleep. At 6 a. m., pulse 100, temperature, 99.2° F. Patient feeling stronger. Patient put on liquid diet. At 4:30 p. m., pulse 94, temperature, 99.4° F. Having rested well during the day, the patient was stronger and in good spirits, but com-

plained of some pain. Nov. 8., 9:30 a. m., pulse 87, temperature, 99.1° F. Dressings were removed and the wound was irrigated with alphazone, 1:2000, and packed with iodoform gauze. There were no signs of infection as yet, but great ecchymosis of the parts. The irrigations and packing were repeated daily, diminishing the quantity of gauze each time until the eighth day, when it was unnecessary. There being a slight amount of pus on the ninth day the wound was irrigated and wiped out with 96-percent carbolic acid. An uneventful recovery followed.

The circumstances which brought about this deed are as follows: His wife, being pregnant, sexual intercourse became very distasteful to her. When young he had formed the habit of masturbation, due chiefly to a long, tight foreskin, and he now resorted to this way of satisfying his passion. Being a zealous church member and reader (not student) of the Bible, he read of the condemnation of Onan, and worried about himself. He read the passage in Matthew 18:8-9, "If thy hand or thy foot offend thee, cut them off," etc., "If thine eye offend thee, pluck it out," etc. After due consideration he decided to rid himself of the offending parts. Being left alone for a few days he carried out his intention, at about nine in the morning, by using a razor, but after removing the left testicle he became alarmed at the hemorrhage, which

prevented him from unsexing himself completely. At 10:30 p. m., feeling faint, he went to the home of his aunt about ten rods distant and had her call his wife and my-

self. They immediately placed him in bed, where I found him. I have advised a close circumcision, which will be performed in a short time.

TREATING THORACIC SARCOMA

A severe and necessarily fatal case of this malignant disease, showing what may be accomplished by treatment, even here

By F. G. De STONE, M. D., San Francisco, California

THOUGH I know it is not the rare cases you most desire for publication in your journal, the following case has interested me so much that I cannot refrain from letting others know about it. Besides, it has a remote bearing on the call you made in July CLINICAL MEDICINE, asking for expressions from readers as to what should be omitted from the journal to make room for a correspondence course. To this I will refer later.

The History of the Case

May 15 I was called to see a Mr. W., finding a man 65 years of age, of medium height. His face presented the ashen-yellow color of malignant disease; his large, wide-nostriled nose was of the deep-purplish red of a chronic alcoholic, with distended venules; the skin of the cheeks also was flushed and at times cyanotic, giving the impression of chronic hepatic engorgement. (These signs became all the more confusing when I learned the man committed no excesses in eating and never drank liquors.) The finger-nails, and even the toe-nails, were remarkably clubbed, indeed more so than most victims of phthisis, yet there was no evidence of this disease. At all times the hands were cyanosed, with purple nails, yet there was no dropsical swelling. His respirations were hurried and labored, and never can I forget the look of anguish on his countenance, his eyes roved restlessly about with a wild, haunted look, and almost the first words he spoke were, "Oh!

Doctor, can't you do something to stop this awful pain?" I assured him I could, but when I learned he had been taking codeine pills in 2-grain doses for months, I did not feel so sure of my statement.

The Physical Examination

Inspection showed a large tumor to the left of the sternum, extending from the lower border of the clavicle below almost to the nipple and latterly almost to the head of the humerus. Immediately below the clavicle and toward the clavicular notch it was somewhat pointed, and the apex softened enough to dent on pressure.

Inspection also showed the most marked transmitted pulse I have ever seen, the pulsation appearing about one inch above the navel and could readily be seen twenty feet away; indeed I at first suspected aneurism of the abdominal aorta, but the most rigid examination failed to discover such. (I will show why it was so marked, later on.)

Percussion showed absolute solidity of the upper left lobe of the lung, and I concluded correctly that the tumor involved the whole lobe, although a prominent specialist had advised operation, stating the tumor was external to the thoracic wall. Autopsy subsequently showed my inference correct. Neither could I make out the area of heart dulness, which puzzled me greatly. At times I believed the heart to have been misplaced downward, thus accounting for the pulsation below, but it was not, being found in correct position.

The liver, though somewhat large, presented no abnormalities externally, and examination of the feces showed it performed its proper function.

The pulse was strong though intermittent at times, yet it was otherwise normal and remained strong till the end. Repeated examination of the urine showed it to be perfectly normal. The tumor on pressure gave forth the peculiar crepitant feel so common in sarcoma.

The Blood Findings and Treatment

Dr. Charles Clark was called in to make a blood analysis, and as he has kindly agreed to give a description of his findings here as well as in the subsequent autopsy, I shall only state here that the count showed something below 3,000,000 red corpuscles, and they were almost devoid of hemoglobin, being mere rings of color, and out of many slides only one transitional cell was found.

On this finding I informed the family that I had little hope of doing more than to relieve his suffering till the end came, and as they were thoroughly satisfied with my handling of the case, as was also the patient, I was retained till the end came two months later. And I hope I shall never have another such case, for the man himself was one of the most unassuming, kindest, uncomplaining patients I have ever seen, when bearing as he did, the agonies of the damned as he had done for upward of a year, and to realize I could not help him, as each day I came he would ask me what progress I was making, was one of the hardest experiences I have had to meet in fifteen years of practice, though I did have the satisfaction of relieving him of pain after the first three weeks.

I began the use of trypsin and amylopsin in the hope of relieving the pain, and rapidly ran the trypsin up to one ampulla daily, and two of amylopsin, and by the end of three weeks was giving two of each; but as no effect save severe nausea and derangement of digestion, with no abatement of pain (from the latter he was only free when almost unconscious from morphine), I discarded the treatment and resolved to try strychnine and morphine, as suggested by

Dr. Seba in *Ellingwood's Therapeutist* for March. I gave him strychnine nitrate, gr. 1-30, t. i. d., morphine, gr. 1-4, and cactin, gr. 1-6. As he stood it well, even improving in appetite, I increased it rapidly until he was taking gr. 1-8 altogether of the strychnine daily. By this time the pain had almost entirely disappeared and the physiologic action of the strychnine was marked. The dose was then reduced enough to hold him within the bound of that action, and then withdrawal of the morphine, till the last three weeks no morphine was given. Yet no pain was complained of and the patient, though weak, remained rational till the last.

He passed away July 11, and Dr. Charles Clark assisted me in the autopsy as did also my nurse and wife. My wife has drawn a cut of our finding that may be of aid in understanding the most remarkable feature of the case, which was the fact that the man had no stomach.

Where the esophagus should enter the stomach was a slightly sacculated pouch not as large as some of the dilations of the colon, and from this led a curving horseshoe-shaped gut not larger than the normal duodenum, this curved down at an oblique angle, and what should have been the pylorus, terminated in the commencement of the duodenum about opposite the navel. The head of the pancreas was left entirely bare and seemed to be normal, the space containing the celiac axis, and the foramen of Winslow was covered only by the wall of the abdomen, and this space was fully as large as a man's hand. In this space could plainly be seen the abdominal aorta, bare for several inches, and also the vena cava. This fact explained partly the singular plainness of the transmitted pulse, and I conceive it probable that the extreme hardness of the upper lung-lobe, with its many adhesions to the thoracic wall, prevented the heart from giving the usual apex-beat, as it could not be detected in its proper place.

His family stated that his appetite was always poor and that he was never a drinking man. As his daughter expressed it, "He did not eat enough to keep a bird alive;" which can readily be understood from the

fact that the pouch could not contain more than half a pint.

The liver was very large, weighing at least six or eight pounds, and both it and the spleen was riddled with infarcts; but as stated before, Dr. Clark will describe the tumor and the microscopic findings, which follows:

MICROSCOPICAL REPORT AND REMARKS

On May 23 I was called to make a complete examination of the blood of a Mr. W., by Dr. De Stone, with the following results:

Red blood-corpuscles, 2,892,000 per Ccm.; white blood-corpuscles, 7200 per Ccm.; hemoglobin, 60 percent.

Differential count of white blood-corpuscles showed the following: Polynuclear neutrophils, 83; large lymphocytes, 8; small lymphocytes, 7; eosinophiles, 1; transitional, 1.

In counting over 500 white corpuscles only two transitional cells were observed.

The red blood-corpuscles showed extreme loss of hemoglobin, this being represented by a narrow ring of stained material.

Some two months later I was requested to assist at the postmortem examination of this same patient.

The subject was extremely emaciated and presented as a striking feature a large hemispherical growth occupying the entire upper left quadrant of the thorax. The growth was approximately 4 inches in diameter and projected 2 1-2 inches above the surrounding tissues. Palpation developed the fact that the growth was quite firm, with the exception of several softened areas.

On making the usual postmortem incision and attempting to dissect off the skin over the tumor, I observed that it was generally free, with one or two exceptions, and on attempting to loosen it at these places, one of the softened foci was opened and a quantity of thin grumous material was discharged.

The pectoralis major muscle was found to overlay most of the lower portion of the tumor, but its upper portion as well as the pectoralis minor were incorporated in the tumor mass.

On dissecting off the soft tissues it was found that the sternal end of the clavicle, the upper half of the sternum extending beyond its median line—the costal cartilages and anterior extremities of the first, second, third and fourth ribs were incorporated in the growth—in fact infiltrated by it.

Exploration of the thoracic cavity showed that the growth had also extended through the chest-wall and involved the pleura and almost the entire upper lobe of the left lung—even destroying it clear to the apex.

The left pleural cavity contained quite a quantity of pleuritic fluid. The right lung and heart were macroscopically normal.

Examination of the abdominal contents showed several of the organs to be abnormal.

The stomach was extremely atrophied, being represented by a section of intestine about the size of the normal duodenum—with the exception of a pouch about 2 inches long and possibly 1 1-2 inches

in diameter, located at the site of the normal cardiac extremity. The organ, generally speaking, was much depressed, occupying a position on a level with the umbilicus.

The liver was enlarged, and studded over its surface were a number of small pearly white nodules from a sixteenth to an eighth of an inch in diameter.

The kidneys were apparently normal as to size and color, but on the upper portion of the right was a small cyst one-eighth inch in diameter.

The spleen was of normal size and consistency, but its surface was thickly studded with nodules similar to those found on the liver.

I prepared microscopical sections of the tumor and affected organs which show the tumor to have been a sarcoma. The cells were both of the round and spindle varieties, the former predominating. Sections taken from the growing edge of the tumor within the chest and next to the lung-tissue have an appearance very similar to that of a carcinoma, showing well-defined cell groups separated by trabeculae of fibrous tissue.

While the gross appearance of the kidneys was normal—sections show the existence of a low-grade nephritis, as the intertubular connective tissue was noticeably increased and many of the tubules presented no cellular lining. A number of small retention-cysts also were noticed. The comparatively large cyst already mentioned was found to have a wall composed of a single layer of cuboidal epithelium and in the cavity was considerable granular detritus and pigment as from an old hemorrhage.

The small nodules on the spleen and liver were found to consist almost entirely of fibrous tissue with a very few small round cells scattered throughout, while next to the parenchyma of the organs was a narrow band containing pigment-granules. Otherwise the organs appeared to be normal.

CHARLES CLARK, M. D.

Concluding Remarks

Now for the bearing on the question you have asked THE CLINIC readers:

1. The Editorials. I do not believe any of the "family" would listen to the omission of one of the leading articles: who can estimate the good done in the splendid series on the liver last year by Dr. Abbott, or how many of us who take a pride in physiology were not helped by the article on vasodilation by Dr. Waugh, this year; and, again, is there ever a month that Dr. Robinson does not have some helpful suggestion on venereal disease; and the other lads—Butler, Kerby, Shallor, etc. I cannot name them all, but I get great good from each of them. No! we need these in our business. The editorial department that gives us an "eye-opener" as to what the "other fellers" all over the world are doing—we want that. Then there are the "Nuggets" that gives us a quick cue

for a long run on some pesky thing that has worried. We will not drop them.

Next we come to the "Miscellany," and here is where THE CLINIC shines, for as the eye runs down that list it is almost certain to find one or more subjects that tell just what will do for that puzzling pruritus, hemorrhoids, gleet, gonorrhea, neuralgia, or rheumatism, or what not, and the "man" needs it quickly and does not have to read a week to get a bald fact. This latter subject is what I wanted to mention in regard to my case. The short article by Dr. Leba in Ellingwood's journal just made it possible for me to help this one patient over the "divide" without pain and was worth

many times the price of the journal. No! No! Don't cut out any of THE CLINIC.

Why not give us the correspondence course in pamphlet form and charge us a dollar or so for it? If every doctor that reads THE CLINIC is not ready to do so I miss my estimate of them entirely.

As this article was written last July, the call you made as to expressions in regard to omitting certain parts of THE CLINIC to make room for a postgraduate course is now not relevant to the subject as you have already decided on your course; hence you may use your own judgment as to incorporating it with this article.

OVARIAN ABSCESS CURED BY ASPIRATION

A severe case of this disease in which the symptoms were pressing, in which drainage was made through the abdominal wall, resulting in complete cure

By GEORGE H. TICHENOR, JR., A. B., M. D., New Orleans, Louisiana

Former Yellow-Fever Expert, Louisiana State Board of Health; Member of the Association of Medical Officers of the Army and Navy of the Confederacy

MORE than two years ago I was called hurriedly to see a case of ovarian abscess which was about to rupture and the attending physician had decided to operate at once.

The following symptoms were present: Violent chills followed by fever, with profuse sweating. The fever did not differ essentially from that of abscess elsewhere, running the regular characteristic course. The woman complained of a feeling of prostration, with throbbing pain in the left ovary, pressure upon the rectum and bladder, and sometimes interference with urination. There were severe pains down the left thigh.

Abdominal palpation with rectal and vaginal touch revealed a fluctuating tumor about to discharge. Being afraid that in the effort of moving her to the hospital the abscess would rupture unfavorably, and as there was no time to lose, I suggested the

old method of aspiration through the abdominal wall, which was done.

After the removal of a large quantity of pus, a drainage tube was inserted and remained *in situ* until the discharge ceased, which occurred about the seventh day. The wound was allowed to remain open and it closed without the use of any antiseptics. The bowels were kept open with saline purgatives. Uterine and ovarian tonics and sedatives were given. There was a complete recovery and this year she gave birth to a fine boy.

The object of this paper is merely for the purpose of statistics, and to encourage the use of some of the older methods which still serve as very valuable aids in modern surgery. If I had been familiar with Buckley's alkaloidal tonic combination for uterine troubles, I believe I should have gotten even quicker results.

PUERPERAL SEPTICEMIA TREATED AND CURED

A severe case of puerperal sapremia, caused
by retention of placental tissue, and the
method of treatment which gave success

By A. W. THOMAS, M. D., Trenton, Tennessee

ON the night of February 19, 1908, I was called to see a patient living about three miles from the town of Trenton, in the state of Tennessee, in a very dilapidated looking building. It was one of those cold winter nights with a "north-wester" blowing lightly and a little snow falling, just enough to remind one that winter is yet here.

On arrival at the patient's home I found her in a very excited and half maniacal condition. She could not talk sensibly, that is, I could not get any sense out of what she was saying or trying to say, therefore I tried to gather something about the case from a woman who appeared to have been waiting on her.

History of the Case.—Three days previous to the time I was called she gave birth to a boy, and during her confinement she had a "granny" who acted as her *accoucheur*. No trouble took place in the delivery of the child, they said, but the expulsion of the placenta was difficult and took a rather long time.

Examination of the Patient.—Between her spells of excitement I succeeded in taking her pulse and temperature; the temperature registered 106° F. at that time, and there was a quick, bounding pulse (which later on became rather feeble, as a result perhaps of the rapidity with which the disease was traveling). She complained of being rather chilly and cold now and then, and often she would shiver. Sometimes she would become quite drowsy and a little later burst into a fit of excitement, jump out of bed, try to go out of doors, etc.

Right here permit me to say that on entering the room I detected a rather peculiar foul odor (which most medical men would detect who have cultivated olfactory)

which readily led me to think this a case of puerperal septicemia. I then made a vaginal examination and found that the womb was giving off a rather dark-colored, frothy, pus-like fluid with a very disagreeable smell (far different from the lochia of a normal birth).

Treatment of the Case.—As I have already stated that, on entering the house, I was greeted with a very excited patient, I immediately proceeded to quiet her and succeeded very easily by giving two granules, hypodermically, of cicutine hydrobromide. She remained quiet during the remaining part of her illness.

Having succeeded in quieting her my next procedure was to get down to the seat of the trouble and remove it, and I did this by dilating the os uteri, thoroughly cureting its cavity, then thoroughly douching out the organ with a hot normal salt solution, using about two gallons of that fluid.

In order to accomplish this I put my patient to sleep by using hyoscine, morphine and cactin hypodermically. Bear in mind that she already had two granules of cicutine, so she did not require much of the hypodermic anesthetic. What I used did the work without a hitch.

In passing let me say right here that the cause of the trouble was retention of part of the placenta, which was not expelled, due probably to uterine inertia, also to the unclean hands of the old "granny."

For the fever I gave her the defervescent compound, consisting of aconitine, digitalin and veratrine, one granule every fifteen minutes for twelve doses, then one every half hour. By the use of these excellent granules I succeeded in bringing down the temperature to 100° F. in twelve hours. For the septic condition I gave her one

tablet each of echinacea, 1-2 grain, and calcium sulphide, 1-6 grain, every hour. The defervescent compound acted nicely. both for the reduction of the fever, as well as helping to eliminate the septic material from the system, through the veratrine they contain.

For the alimentary canal I gave her 1-10 grain calomel with aromatics, dissolved on the tongue, every hour until her bowels moved, then I followed with a teaspoonful of effervescent saline laxative and continued to give her a teaspoonful of that laxative every morning till I gave up the case as cured.

For the restoration of her strength I ordered to be given her an "egg-nog" now and then, custard, a little chicken broth, some beef tea and so forth. Her appetite at first was rather feeble, but with three

granules of strychnine arsenate three times a day after meals (which acted as a tonic as well as increased the red blood-corpuscles) she rapidly acquired a good appetite, her natural color returned, in place of that of an anemic appearance, and now she is well enough to be about the house.

This case, after I was called in up to the time I discharged the patient, lasted just fourteen days.

[A very interesting case, treated in a most rational manner. As the doctor says, it was undoubtedly due to the retention of placental tissue, which was decomposed as a result of infection with putrefactive bacteria. Such a case should more properly be called "sapremia" rather than "septicemia," though the latter term is often used to cover all these cases of "blood poisoning."—ED.]

TREATMENT OF SEPTIC PAROTIDITIS

A comment upon previous articles dealing with this disease, suggesting a medicinal line of treatment which the author believes should prove useful

By WILLIAM LAMBERT, M. D., La Crosse, Wisconsin

THE article on "Fatal Parotiditis Following Labor" by Dr. W. C. Bateman, of Zanesville, Ohio, has interested me very much as has also one on "Septic Parotiditis as a Complication of Abdominal and Pelvic Surgery" which appeared some months ago in *The Columbus Medical Journal* from the pen of Dr. Emory Lanphear, of St. Louis. Both are of importance from a clinical standpoint, but it seems to me that each of the authors has failed to give that prominence to internal medication which should have been given. The pathology as stated by Lanphear is no doubt correct; his ideas are in harmony with mine in that particular, but in the matter of treatment we do not agree.

In every form of sepsis after the poison has been taken into the circulation, a certain rigidity gives way to perfect relaxation,

which in turn facilitates further absorption and unless we can close up the capillaries and as far as possible render the blood aseptic our patient will succumb to the infection. Nothing is better in such cases than ergot, potassium chlorate and echinacea. In cases such as described by these writers it would be best to give 10 drops of potassium chlorate and 15 drops of echinacea (specific tincture preferred) every hour.

After tonicity has been produced the frequency of the dosage should be reduced to two, then three and finally four hours until the general conditions have improved satisfactorily.

In cases following confinement this plan of internal medication must be continued, in connection with local measures such as irrigations, etc., until the lochial discharge is normal in quantity and quality. In most

cases the sepsis may thus successfully be combated and the patient be carried to a rapid recovery.

[We are glad to give due prominence to the possibilities of internal medication in the treatment of this disease, and we shall be

pleased to have reports from other members of the "family" who possibly may have had experience with it. In our own experience, septic cases of all kinds receive benefit from "clean-up" medication with echinacea and calcium sulphide to combat the germ-trouble.—ED.]

... SURGICAL THERAPEUTICS ...

LEUKOCYTOSIS

This is becoming of much importance in surgical and gynecological work. The word is now used to mean an abnormal increase in the leukocyte-count, but never to the enormous extent found in leukemia. The increase, too, is due to a different cell from that in leukemia, viz., the polynuclear, which forms from 62 percent to 70 percent of the white cells in normal blood. The polynuclear leukocytes are increased in purulent processes, tumors (benign and malignant) and septic conditions. The special value of the leukocyte-count is in determining the presence of a suppurative process. By a marked increase-leukocytosis one may tell if an appendicitis is ending in suppuration (operation is advisable when the count is above 20,000.) But it must be remembered that the amount of the leukocytosis is not dependent upon the amount of pus alone, but other factors must be taken into consideration, as the severity of the infection and the resistance of the patient. A high count might indicate a severe infection with good resistance, while a severe infection with poor resistance might show a light count or absence of leukocytosis. Again if the abscess is well walled off, and the process a chronic one, the leukocyte-count might not indicate the amount of pus present.

QUINSY

When an inflammation of the tonsil goes on to suppuration in the depths of the gland or in the connective tissue behind it, the irritating gargles so much used for phar-

yngitis and tonsillitis should be abandoned, hot, mildly saline solutions being substituted therefor. Before suppuration occurs sodium salicylate in half-gram (8 grains) doses every two or three hours is an aid in the abortive treatment, but it should not be continued after pus-formation is evident, as it debilitates the patient. As the inflammation progresses and pain becomes severe, 50 centigrams (3-4 grain) of codeine may be given every two or three hours; and hot applications made at the angle of the jaw. As soon as pus forms, it should be evacuated—there is danger in delay. The tonsil should be thoroughly swabbed with a cocaine solution, and punctures made with a sharp knife in what appears to be the abscess. If pus is not reached (which is more than probable at the first effort) some relief is always experienced even from the slight loss of blood which these punctures entail. In a few hours, again with cocaine, other punctures may be made; and when the abscess is opened freely as much pus as possible must be pressed out. After the evacuation of the abscess relief is immediate, but warm, mildly antiseptic gargles should be continued at intervals throughout the convalescence. After the swelling has subsided a tonic containing iron is generally indicated for the associated debility.

SERUM TREATMENT OF TETANUS

In lockjaw, after thorough cauterization of the wound and providing freest possible drainage, the antiseptic serum should be injected. Preferably this should be done into the subarachnoid space or brain-

substance through a minute trephine-hole; but usually the patient or friends will not permit; next-best is lumbar puncture with injection into the spinal canal; least beneficial are subcutaneous injections. In every suspicious wound (like that from the toy-pistol) one should not wait for trismus, but the injection should be made as soon as possible after the accident; even if one is called to a patient with a suppurating, tortuous wound forty-eight hours to three days after the accident the same injection should be made, because, even if the effect upon the toxins is not so great, fewer cells will be destroyed. Whenever a wound has possibly come in contact with horse-manure, the injection should be made if, on account of a tortuous wound, one is not certain of his ability to obtain rigorous disinfection. In both of these classes of wounds, or in any other in which there is the least suspicion of tetanus, the injection of the antitetanic serum should be repeated two or three times at an interval of eight days if the wound should continue to suppurate. It must be as recently prepared as it is possible to procure.

SUPPURATIVE PAROTIDITIS

As soon as one is fairly assured that pus is forming in inflammation of the parotid gland there should be no hesitancy about making free incision. The old plan was to allow the abscess to develop to such size that it would open spontaneously through the mouth or opened so that it would empty that way. Now we know the great danger of permitting the suppurative process to proceed uninterrupted and open it from behind the jaw as soon as the presence of pus is fairly sure.

TUBERCULOUS PERITONITIS

Bussi's treatment of tuberculous peritonitis, purely medicinal, is said to give excellent results in some cases which cannot be subjected to operation. In this the abdomen is tapped and the effusion drawn off and the whole anterior wall is then painted

with iodine and guaiacol. Hypodermic injections of the following are given.

Iodine	1.0
Potassium iodide.....	10.0
Guaiacol	20.0
Glycerin	80.0

Iodized gelatin may be given by mouth later. All surgeons now believe iodine to have a remarkable specific effect in tuberculous processes. A recent plan of treatment has yielded excellent results; it consists in tapping the abdomen and the introduction of heated air, with application of a bandage giving some compression, and the internal administration of iodized gelatin.

PLEURITIS WITH EFFUSION

Experience demonstrates that in pleuritic effusion it is far better to aspirate early than late, local measures and internal medication being of little value unless giving immediate results, save in very small collections of serum. As a broad rule it may be said that removal of the fluid as soon as it can be detected is indicated in every case of primary pleurisy. And in secondary effusions early evacuation is advisable, particularly in the latter stages of myocardial insufficiency. It is best always to have the patient in the recumbent or semirecumbent position, and cease withdrawing the fluid when the symptoms of faintness come on, repeating the procedure if necessary for the complete emptying of the chest. A local anesthetic may be used; with a strong stimulant, such as 2 ounces of whisky, a few minutes before operation.

NON-OPERATIVE TREATMENT OF LUPUS

Patients who are reluctant or unable to go to hospital for operation for treatment of lupus may be chloroformed and the entire affected area thoroughly burned out with the Paquelin cautery, which is far better than chemical caustics. Many however will not submit to even this procedure. Such may be treated by the Dreuw method, thus: The lupus-patch which is to be treated is frozen by means of ethyl chloride

(or by carbonic acid gas if a deeper effect is desired) until it is snow-white. Over this frozen surface crude hydrochloric acid is rubbed thoroughly and with a certain degree of force. According to Unna it is advantageous to saturate this crude hydrochloric acid with chlorine. The acid is applied in the following way: Absorbent cotton is wound around one end of a small wooden stick of about the size of a penholder; this is dipped in the crude hydrochloric acid and rubbed on the frozen surface, pressing slightly, till the nodules become of a grayish white color. (Reaction.) The grayish white color occurs first where nodules are, and then in the skin surrounding the nodules. In this way a large surface can be treated at once by a succession of applications of the caustic; but to be effective the acid must be energetically rubbed in. This freezing and cauterization is especially suitable (1) in lupus multiplex and lupus exulcerans; (2) in lupus of the mucous membranes, the nasal cavities, the lips, and tuberculous abscesses and fistula. (Cauterize from six to eight times in rapid succession.) But when freezing is not well borne by the patient (e. g., nervous and sensitive patients) or where very energetic cauterization is necessary, as in tuberculous ulcers, lupus hypertrophicus and verrucosus, then general anesthesia is necessary. The advantages of this method are as follows: (1) The method is simple, cheap, rapidly effective, and gives good cosmetic results.

(2) It can be carried out at home without hospital treatment, which is especially important for patients of limited means. (3) Complicated apparatus is not necessary, therefore the method can be applied by any doctor. (4) The method can be applied in all forms of lupus and in all situations, with the exception, perhaps, of the eye. Favorable results are as a rule obtained by repeated cauterization, even in far-advanced cases, especially in lupus of the nasal cavity.

HEMORRHAGE FROM BONE

When a broken or cut bone persists in bleeding, the point of a hemostatic forceps or other blunt instrument may be punched into the bone at the point where the vessel shows. If this does not stop the oozing or spurting, a little bit of muscle or of fascia, or even skin may be clipped off and used as a plug, the fragments being tamped into the little vascular openings so tightly as to occlude the vessels—a sort of artificial thrombus in each open artery or vein. By firm pressure with the finger or some flat instrument for a half minute or more even large vessels may be permanently occluded in this way. The obvious advantages are that material is always accessible during the operation, it does not require special preparation, it acts as a foreign body, but more like a blood-clot, and it seems to be always efficient.

GYNECOLOGICAL THERAPEUTICS

KRAUROSIS VULVÆ

As old age comes on the vulva may undergo a hardening, or drying, with shrinking of the skin of the external genitalia, accompanied by great tenderness, the senile atrophy being associated with contraction of the vulvar orifice. It was first described by Briesky under the name "progressive atrophy of the nymphæ and vestibule;" but the name

kraurosis is now generally used. Lawson Tait mentioned it as occurring at or immediately after the menopause; but Briesky's cases were in pregnant women close to the climacteric. In this disease the vulva becomes smooth, pale and tender, with irritable, red patches on the remnants of hymen and the vestibule, with urethral caruncle prominent and excessively tender; later there is dryness and lack of elasticity of the vulva,

which becomes almost as white as if touched with pure phenol, with fissures here and there. Little nodules may be felt. The hair of the pubes has generally disappeared; that of the vulva is coarse and broken. At last the labia almost entirely disappear, so complete is the atrophy, the mucous membrane becoming smooth and pale and the introitus so small and tender as not to admit the finger for examination. Pruritus is sometimes extremely annoying and is most often the reason for seeking the service of a gynecologist. In the very last stage pain and tenderness disappear, the parts becoming totally insensitive. Nothing in the way of local applications seems to do good. Burning with the Paquelin cautery cures some patients. Others are relieved only by excision of all of the affected parts.

LACERATED PERINEUM

It is well always to bear in mind, in discussing with patients the advisability of submitting to secondary perineorrhaphy, that as a result of a lacerated perineum the woman will not only suffer the discomfort of the pelvic ptosis which accompanies it, but on account of the cystocele will be unable to empty her bladder completely. The residual urine will cause cystitis, followed by suppurative changes, the infection finally finding its way through the ureters to the kidneys. Thus a lacerated perineum may be indirectly the cause of death.

ELEPHANTIASIS OF VULVA

In the tropics elephantiasis attacks the vulva of woman, though not as frequently as the scrotum of man. Rarely it is seen in Europe and North America. It is totally different from hypertrophy (or overgrowth) of labia or clitoris—by some writers designated as "spurious elephantiasis." It depends exclusively upon blocking of the lymphatics of the labia by the *filaria sanguinis hominis*, which can be demonstrated in the blood early in the disease. There is no ulceration as in esthiomene, but a steady, constant enlargement until the parts may

attain immense proportions—the surface presenting an irregular, nodular appearance (when the condition is called elephantiasis verrucosa), or becoming covered by papillomata (then designated as papillomatosa), or less frequently assuming a smooth, shining condition (then known as elephantiasis glabra). From trauma, filth, etc., the surface may rarely become ulcerated; but this is not common. Howard Kelly regards syphilis as also a cause; but neither mercury nor iodides seem to be curative. Early removal might cure; but generally, when seen, the disease is too far advanced to be helped, the only treatment being a protective one, with healing applications if ulceration has occurred.

ACNE OF THE FACE IN WOMEN

For the troublesome acne of the face so often seen at the menstrual period the following may be advised: Empty the follicles at night; wash with very hot water; apply this ointment:

Washed sulphur	3.0
White resorcin	1.5
Vaseline	300.0

Sometimes it is better to use this more active preparation:

Sublimed sulphur	2.0
Salicylic acid	2.0
White resorcin	2.5
Green soap	2.5
Vaseline	20.0

In the morning this ointment is to be removed, with absorbent cotton, which is first dipped in a little olive oil and washed with a nonirritating soap. After the skin commences to desquamate, zinc oxide ointment is substituted for these.

UTERINE HEMORRHAGE AT PUBERTY

Menorrhagia is not common at the beginning of menstrual life, though uterine polypi sometimes cause excessive flowing from almost the outset. Very rarely the menorrhagia becomes a metrorrhagia; and this is most likely to occur in a patient who has hemophilia. The excessive hemorrhage

may also be a symptom of purpura, as well as of diabetes. Hence in all such cases the examination must be limited to a mere search for pelvic diseases or growths. A mild form of menorrhagia may be present in chlorosis, but it generally appears after the menses have been fairly well established. Tuberculosis also predisposes to hemorrhages at the menstrual period. Most cases yield promptly to remedies directed toward correction of the cause, excepting the hemophilic form, which is most intractable.

FOR HOT FLASHES

For the hot flashes of the menopause fluid extract of eucalyptus globulus is recommended; but it has to be continued for some time.

ABORTION CAUSED BY X-RAYS

By means of experiments on animals Fraenkel (*Interstate Medical Journal*) was able to further support the claim of Fellner and Neumann that x-rays cause distinct degenerative processes in the ovaries, and in pregnant animals a retarded growth of the ovum. Similar is the effect of an exposure of the thyroid gland to the x-rays. These results encouraged Fraenkel to use x-rays as a means of producing artificial abortion.

Interruption of a pregnancy of three

months seemed indicated in the case of a young woman in whom a pulmonary tuberculosis, immediately after impregnation, rapidly began to grow worse. The author applied the x-ray to both ovaries, and to the thyroid gland. By protecting the rest of the abdomen with a lead plate he tried carefully to limit the effect of the rays to the ovaries. Twenty-five exposures were made, lasting from five to ten minutes, the thyroid being exposed every other day. After a short labor the ovum was expelled *in toto*.

Although the writer is convinced that the abortion was the result of the ovarian changes, he cannot deny that possibly a direct harmful influence is exerted by the rays upon the fetus. He also states that at times during the exposure the patient would complain of a cramping pain, probably caused by a uterine contraction, or would involuntarily void urine, indicating a contraction of the bladder. Of course fear, as a psychic effect of the procedure, may have played a role in the causation of these two phenomena.

The writer also mentions three cases in which marked disturbances of menstruation appeared in women in whom the thyroid gland was exposed to the x-rays on account of goiter. In two patients menstruation was delayed and extremely scanty, in a third amenorrhea resulted.

DERMATOLOGIC THERAPEUTICS

ECZEMA OF THE VULVA

Ecze-ma may occur on the labium majus or the mons veneris, extending later to the perineum, anus and buttocks, proving very annoying and persistent. During the acute stage the affected surfaces are very red and swollen and the condition may be easily mistaken for an acute infection (gonorrhea, etc.); but careful examination shows the presence of numerous transparent vesicles like pin-heads. Besides, there are present

signs of the rheumatic trouble, stomachic and colonic disturbances, etc. characteristic of acute eczema. By the third week the acute symptoms have all subsided and the signs of chronic eczema begin to make their appearance: the affected areas become covered with pus, crusts and dry scales, with fissures at the fourchet, in the genitocrural folds and later around the anus. At the menses the itching and burning are intense and suffering is often acute. Usually patches of eczema are now discoverable upon other

parts of the body; but sometimes the anogenital region above is implicated. The disease is essentially nervous in character; so that, in addition to the remedies prescribed for the local irritation drugs and diet peculiar to the rheumatic and the eczematous patient must be prescribed. Briefly: the diet must be bland and un-irritating and the bowels kept relaxed. In the worst cases the woman must be put upon an exclusive milk diet.

ECZEMA OF EXTREMITIES

In cases of acute erythematous eczema of the extremities, when the itching and burning are very pronounced and annoying, the application of a dilute solution of adrenalin to the lesions will produce a rapid blanching of the parts and allay the intolerable distress. After the acute symptoms have subsided an ordinary Lassar paste, with or without ichthyol, wherein a small amount of adrenalin solution has been incorporated, will hasten the restoration to the normal.

OINTMENT FOR SCABIES

There is, as a rule, no more efficient combination for the treatment of scabies than the following:

Sulphuris precipitati.....	drs. 2
Balsami peruviani	dr. 1
Potassii carbonatis.....	dr. 1
Saponis viridis.....	drs. 4
Adipis	drs. 12

The ointment is irritating, but if well rubbed in does the work quickly. Should a slight dermatitis follow, apply the following ointment:

Zinci oxidi	drs. 4
Bismuthi subnitrat.	dr. 1
Talci	drs. 2
Petrolati	ozs. 2

VARICOSE VEINS OF VULVA

While of minor importance in most instances varicose veins of the vulva sometimes cause great suffering. When quite

small they may be left alone, but when the vulvar plexus of veins has become ectatic in such a manner as to cause a marked, soft, pudendal swelling, operative measures should be favorably considered. These are radical but not serious. Their analogue, varicocele in the male, has long been considered a surgical affection; and yet enlarged veins of the vulva (while the suffering they cause has been distinctly recognized and the danger from rupture of the vessels in labor has long been known) have generally been regarded beyond surgical relief. If incision be made under strictest antiseptic precautions, the affected veins ligated with catgut and then excised and the wound perfectly dried and sealed with collodion, there is no reason why healing by primary union should not be obtained. It is sometimes best in coaptating the tissues to bury a line of sutures, quite deeply taken, in order to constrict vessels which have not been isolated and included in the ligatures, the larger thrombi, which sometimes are so extensive as to threaten gangrene of the parts, are often better treated in this manner.

INTRAMUSCULAR INJECTIONS IN SYPHILIS

Next to intravenous injection of mercury the introduction of some form of this drug into the muscles constituted the speediest method of cure of syphilis. The chief objection is the local irritation, especially from insoluble mercury compounds, such as the salicylate which is injected in a 10-percent emulsion in petrolatum. It is a question whether mercury in this form is absorbed at best, and it is important to secure the best conditions for absorption. The injections of any mercurial should be made in the gluteal region directly into the muscle, great care being taken not to touch the sciatic nerve. Embolism is the most dangerous complication of the method, and is accompanied by sudden pain in the chest, weakness, and a suffocating cough. Great care should be taken to avoid this complication.



GLEANINGS from FOREIGN FIELDS

TRANSLATED BY E. M. EPSTEIN, M.D.



CHLOROSIS A NERVOUS DISEASE

Some observations concerning the etiology
and differential diagnosis of chlorosis,
with its rational, dosimetric treatment

YES, my dear reader, you have read correctly, "a nervous disease." This notion, which when first heard, seems ridiculous was introduced by Prof. E. Gravit of the University of Berlin. The theory is based on solid facts. But to demonstrate this it will be necessary first to establish the differences which exist between anemia, properly so called, and chlorosis. We quote from Dr. Robert-Tissot:

Chlorosis.—The concentration of the blood in chlorosis is always diminished. Its water content is augmented and its specific gravity is lowered, varying between 1030 and 1050.

¹The erythrocytes: Their number is not much diminished, being between 3,400,000 and 4,300,000. Their diameters vary between 11.5 and 5.2 microns in the middle, therefore averaging 7.6 microns, this being the normal measure.

The red blood-corpuscles (Hayem's "chlorotic hematies") are pale, and their concavities hardly visible. Nucleated red cells are rare or wanting altogether.

The quantity of hemoglobin is diminished in all hematites (blood corpuscles).

The value [functional capacity?] of the hematies (red blood-corpuscles) is lowered, and this constitutes the essential fact, characteristic of chlorosis.

Polychromatophilia is not very rare. It is not a lesion and only indicates the youth of the cell, and shows that the bone-marrow is in a state of reaction.

The total volume of the blood-corpuscles (which can be determined either by sedimentation or centrifugation) is in chlorosis no more than twenty percent, while in the normal state of the blood the total of the corpuscles is from forty to fifty percent. This shows that in chlorosis every corpuscle is poor in hemoglobin, although the volume of each blood-corpuscle by itself may be augmented, owing to its being infiltrated with plasma.

The serum of the blood in chlorosis amounts, as has just been said, to four-fifths of its total mass. Its concentration in severe cases is always a little lower than the normal but it differs on the whole little from that of healthy blood. The molecular concentration of chlorotic blood is in any case less diminished than it is in posthemorrhagic anemia.

This fact shows that the destruction of albumins in chlorosis is little or not at all increased. Chlorotic blood is therefore not affected with hydremia. The total quantity of the plasma is certainly augmented but the quality is normal. It penetrates very probably into the corpuscles and makes

them swell up. In centrifugation the corpuscles give up the plasma which they have absorbed. Chlorotic blood is, therefore, hematologically considered, affected with polyplasmia.

The leucocytes undergo no modification in chlorosis.

The number of blood-plates (hematoblasts) is always increased in chlorosis, and it is in this affection that the greatest number of these plates were observed. The coagulability of the blood in chlorosis is increased.

Simple Anemia.—The number of erythrocytes is lowered. The content of hemoglobin in each red cell varies but little. The molecular concentration of the serum is always lowered in simple anemia.

The blood-corpuscles present here some forms of degeneration (poikilocytosis). The blood is loaded with polychromatophilic cells, with nucleated red blood-cells with macrocytes and microcytes. The number of leukocytes is increased, and so is the coagulability of the blood.

The serum in anemia is in the main too watery, too diluted, yet the value of each corpuscle is almost normal.

Let us examine now the disease clinically:

In chlorosis, as in anemia, there is a general pallor, an enlarged area of cardiac dullness, a systolic murmur, venous murmur (*bruit de diable*), symptoms of cerebral anemia, scotoma, vertigo and faintings. On the contrary, in simple anemics we have none of the nervous troubles, no psychic anomalies, no anomalies of the appetite, no cardiac palpitations, no edema of the skin, such as gives the chlorotic the puffy aspect. Let us remember, too, that in the chlorotics the lesions of the blood are not always proportional to the clinical symptoms. The blood may be hardly affected while all the general symptoms are at full blast (*battent leur plein*). Finally, remember the very important fact that the bone-marrow in chlorosis presents no pathologic lesions. All these things compel us to admit that the blood in chlorosis is not primarily affected. Nor can autointoxications, genital hypoplasia, thyroid troubles be the efficient cause

of chlorosis, but they may be accessory causes.

Clinical observation may, on the other hand, indicate to us in what direction we are to look. All nervous symptoms show that the nervous system is here at fault. The analysis of the blood plasma and the turgesence of the papilla show that chlorotic patients have an excess of plasma in all their tissues. All these facts show that the exchange of fluids between the blood and the tissues is disturbed. This disturbance depends upon the blood-vessels and their ramification, the finest of them in particular. This function of exchange of fluids depends upon the vasomotors, that is, upon the nervous system. The ease with which chlorotic patients change their color (sudden pallor followed by redness not less sudden) shows that it is here we are to search for the cause and not in the blood-making organs, inasmuch as the bone-marrow is not affected even when the disease is fully developed. In a word, *chlorosis is characterized by a bad regulation of the fluid exchanges, due to bad functioning of the vasomotor nerves.*

The data given by Grawitz are based on indisputable hematologic facts and on clinical symptoms with which every physician is sufficiently acquainted, therefore these data cannot but be admitted without reserve.

What then do these indicate as to treatment? Should it be modified? The extreme administrators of iron in its thousand and one forms would, I think, do well to check their sideric fury. For dosimetric physicians the matter is different. With us practice has long since outrun theory. Strychnine, we know, and have said it over and over again, is the grand regulator of the nervous influx and the grand tonic of the multiple neurons which govern human life. It alone can act on the melancholy of the chlorotics, it alone, too, can act on the vasomotors in a state of disorder. In the grand period of growth when nutrition is of such paramount importance (and this means the exchange of the bodily fluids, or, better, the nutritive juices) strychnine is the

admirable weapon which will give the patient comfort and health.

To strychnine ought to be added the excellent tonic, the arsenate of iron, and quassin, which is stimulant to the gastrointestinal canal; and when palpitation of the heart is severe digitalin should be added. Quinine hydrobromide may well be joined to these, on account of its tonic and calmant action on the nervous system.—*La Dosimetrie*, February, 1908.

THIOSINAMIN

A very happy effect of this remedy is reported in *La Province Medicale*, 1908, page 103.

The case was that of a woman forty-seven years old who after being attacked with very severe blennorrhagic rheumatism was left with an absolutely complete ankylosis of the knee and a stiffness of the shoulder joint and limited motion in the elbow, wrists and fingers. The articular motions of the hips and ankles were also limited and painful. Before meeting with the failure of medical and surgical treatment the treatment with thiosinamin in the proportion of 1 in 25, and prepared cold, was instituted. From the 10th of September to the 3rd of October the patient received twenty-five hypodermic injections each of 5 Cc. in the abdominal skin, which makes 20 centigrams of the remedy in the solution. Immediately after the prick of the first injection the patient felt a taste of sulphur in the mouth, which was disagreeable and lasted for many hours and gradually disappeared. An amelioration of the joint trouble was felt on the eleventh day from the beginning of this treatment, and though the movements remained limited yet the patient declared the articulations were more supple and their mobilization occasioned no pain whatever. The amelioration increased on the following days. On the twentieth day, however, the patient noticed an important and new fact, namely a particular difficulty in walking, although the articulations had regained in part their suppleness and the pains were very slight. It seemed to the patient as

though the muscles were elongated and did not obey as in the past the incitation of the will. The muscles had lost their tonicity but were not paralyzed.

In this case the action of thiosinamin shows itself both as a real ameliorator of articular troubles and also as having an unfavorable action on the voluntary muscles and the heart-muscle. The patient in this case was tainted with chronic rheumatism and general arteriosclerosis and latent myocarditis.

We shall have to exercise care in cases like these, when we treat them with thiosinamin, not to go beyond the point of relaxing the periarticular fibrous tissues lest we impair the voluntary muscular system.

(The GLEANER ventures to suggest the propriety of using strychnine in cases like this together with the thiosinamin in the way an alkalometrist would be apt to do.)

CONCERNING THIOSINAMIN

The much-promising name of fibrolysin has been given to a substitute for thiosinamin, which latter has the disadvantage of being very painful when administered hypodermically after the customary formula. It can, however, be given perfectly painlessly by employing the following formula: Thiosinamin, 1.0 (grs. 15); distilled water, 5.0 (grs. 75); glycerin, 5.0 (grs. 75). Of this solution 1 Gram (grs. 15) can be injected unhesitatingly into a feeble person, and the pain will not be greater than from a similar injection of morphine or may be not more than from the prick of the needle. It may be that the single injection from the formula will produce a weaker result than that from the customary formula, but the advantage is that the injections can be made as frequently as five or six times a week, without any drawbacks.

That the same results can be achieved from the weak solutions as from the stronger is evident from the following history: Patient, a woman 36 years of age; in her third pregnancy in the fourth month; cough for many years; hemoptysis two years ago; first parturition four years ago was spontaneous,

and the child died soon of convulsions; second pregnancy terminated with miscarriage in the fourth month; patient has complained for a long time of pains in the chest, cough and lack of appetite; since three years there has been pain in the abdomen, and obstipation; the patient has greatly emaciated recently.

Examination gave the following: Infiltration in both apices of the lungs; slight feverishness; high-grade stricture of the rectum; five centimeters (2 inches, about) beyond the entrance of the rectum seemed entirely occluded. On careful search a small opening was found near the posterior wall in which not more than the point of the finger could be inserted. The mucosa itself was perfectly smooth and soft. No nodules nor ulcers appeared. The stricture seemed to be caused by a cicatrix, the edge of which was sharp and smooth. With some trouble it was possible to introduce a medium-soft male catheter alongside of the finger as a guide. A quantity of stinking fluid feces was discharged and some solid crumbs, and much more of these came away by flushing beyond the stricture. This procedure was frequently repeated for fourteen days and gave momentary relief, but there was no hope of dilating permanently in this way, for the stricture became constantly stronger and tighter and the introduction of the instrument more difficult, the patient complaining more and more and running down rapidly. An operation was indicated and a surgeon in consultation urged dividing of the stricture.

Then Dr. P. decided to make a trial with thiosinamin and began with injecting the above-named solution into the gluteal muscles. The first injection was somewhat painful, but for a moment only, while all subsequent ones were perfectly painless and without any reactions, so that the further injections could quite readily be made in the same place.

The result far exceeded all expectations. After the fifth injection the catheter could be introduced easily and painlessly without the finger as a guide. After the eighth injection a small tube could be used instead of

the catheter and the introduction of it with the finger as a guide very easily. For the first time then after a long time spontaneous fecal evacuations took place. It was found that two more strictures, less pronounced, and some ulcerations existed above the first stricture. The stricture, it must be mentioned, was perfectly smooth. The injections continued to be painless, and the patient could not express wonderment enough at the results, and laughed at her previous anxiety. Four weeks after the first injection of thiosinamin normal conditions of the rectum presented and the injections were discontinued. The patient evacuated her stools normally and without pain, and that permanently. On the course of the tuberculosis the injections had no influence whatever. The patient bore a living child and unfortunately died fourteen days later of acute miliary tuberculosis.

Dr. Pollak treated other patients with injections of the same solution for rheumatism and neuritis and always without pain or reactions. In all these the results were good, but he does not give their histories, thinking the one he detailed perfectly sufficient, and this one deserves well enough to be tested by others in similar cases.—Alois Pollak, in *Wiener Med. Wochenschr.*, 1908, No. 7.)

DECOLORATION OF LIVER SPOTS AND OTHER PIGMENTATIONS

The Italian physician, Dr. Adolfo Mas-soti, communicated to the *Societe Medicale des Hopitaux* at their meeting of February 14, 1908, a new method of treating chloasma and other cutaneous discolorations which he has practised with success, under the management of Prof. Balzer. The treatment consists in scarifications and the application of oxygenated water.

The results are very encouraging. The decoloration of the tissues is brought about very rapidly and almost without pain and without those vivid cutaneous reactions of other treatments which are so frightful to delicate ladies.—*Gazette des Hopitaux*, 1908, p. 233.



OLIVE OIL IN "GALLSTONES"

A case in which there was a mixture of gallstones and some other things, and in which the olive-oil treatment "did the work"

AS to the efficacy of olive oil in gallstone trouble I want to tell you that

I never see olive oil without recalling a case I had while practising in Woodville, Kentucky. The patient, aged about 50, of the cropper class, sent for me, and I found him in bed complaining of almost everything on the calendar, especially of pains characteristic of gallstones. As usual with this class of men (for whom I have no love), he wanted "something done right away, and he had the money to pay his doctor's bills (which I knew was a lie), and he had sent for me, out or five or six other doctors who had been trying to get his practice, because he knew I would do the right thing and do it in a hurry."

I said to myself, right here is where I get even for many stormy nights and cold drives that this class of people have made me take, so I expatiated for about ten minutes on the virtues of olive oil, although, if I hadn't happened to have a quart bottle, nearly full, which I carried in my buggy to grease the axles with, and it had been a box of mica axle grease instead, I should in all likelihood have praised the mica axle grease.

Luck, however, was with me, though, as usual, and that worthless, shiftless son-of-a-gun got the full benefit of that quart bottle nearly full of good olive oil. I didn't take any chances of his not taking it, staying long

enough to see him drink the whole thing, which he did not seem to mind in the least.

I guess it was the first square meal his stomach had had since he had drawn his first advancement of groceries, when he made the contract to crop for Mr. Burnley. He drank all the oil, and I pulled out—I wanted to get away and laugh some, and I did.

I had to pass by this man's house the next evening, and went by full tilt; for all the fun had left me and I was in the usual state of mind that every country doctor knows so well when he is thinking of these long, lean, stringy, good-for-nothing deadbeats. But it did no good, for all the family were laying for me when I came back and I had to stop.

Well, the old fellow had left the house and sickbed and had taken to the backyard. He didn't have any time nor use for anything but some place where he could put that oil. I went back to his camping place and found him getting rid of oil and at the same time stirring with a stick around and around in another patch of more oil, gotten rid of before. And while thus busily engaged he began firing questions at me, wanting to know what I "reckoned" all this stuff was and where it could have come from.

So I began to stir some, too, and you can believe it or not, but I found enough in those pools of oil to start up a small-sized museum. As soon as I got a good look at one puddle

of oil I called for a chamber, and, as luck would have it, they owned one or had sent out and borrowed one (the latter, I guess). Anyway, they brought me a big one, the yellow kind that doesn't break easy, and I instructed Mr. Oil Tank to use it as a reservoir. When it was full I had his wife get a piece of cloth and strain the delicious contents, pouring boiling water through until everything but the collection for the museum had passed through. Then I repaired to the porch and examined my find, which, sure as you are born, were a conglomerate of tapeworms, roundworms, pinworms, gallstones, fish-bones, bones of rats, birds, squirrels, and many things I couldn't place. I could have found enough to rig out entire skeletons, even the shoulder-blades of the different animals. Well, I wrapped up the collection, told the fellow to "go to the devil," and went home.

This is all true, every word of it, and if it does not show the efficacy of olive oil in gallstones, it will at least appeal to the country doctor as a good remedy for the migrating cropper.

You do not necessarily have to print this, but if you do, I will wager that there is many a country doctor who can appreciate it.

THOMAS E. MOSS.

Vigan, Ilocos Sur, P. I.

PROCRUSTEAN DOSAGE

I was much interested in reading some of your observations on "drug action." It reminded me of what occurred to my first wife many years ago. At that time I was not well versed in the diseases of the eye. Mrs. S. was taken with rheumatic iritis. I sent her to a well-known eye-specialist, who not only diagnosed her trouble but sent the wherewithal to treat her, he having, at his office, put a 1-percent solution of atropine in her eyes, and directing that this should be frequently used. On coming into the house she rushed to the water-faucet, huskily stating that she had drank a pail of water and wanted another. The pupils of her eyes were greatly dilated and face flushed.

I informed her that this was the effect of the drops. With a wife's prerogative she stated that it was time to repeat the application, and since the doctor so ordered, she wanted it done immediately. I had to do some tall talking to prevent it, especially since what she told me was corroborated by her accompanying friend. (And parenthetically let me say, specialists are not good consultation doctors.) The iodide of potassium given so offended her stomach that it could not be continued. Knowing that the atropine was used to dilate the pupil and the iodide to cause interstitial absorption, I perforce used a more dilute solution of the atropine and substituted 1-3-grain iodide of mercury pellets three times daily. The results were the best.

There are three things especially a young physician should study when he settles down for practice: First, locality, reflex-action, idiosyncrasy; second, to give the smallest possible quantity to effect a given end; and, third, to remember that the nervous system can simulate almost every disease.

E. B. SILVERS.

Rahway, N. J.

LIKES THE POST-GRADUATE COURSE AND WISHES US SUCCESS

Doctor, I think the postgraduate course is fine, and yet it is only like the other productions of yourself and coworkers, and I, as one of the members of THE CLINIC "family," should be greatly surprised if it had been other than excellent.

I felt, Doctor, when it was first started that it would be impossible for me to take the course, but your letter urging me to *take time* caused me to try. It is a great source of pleasure to get replies to my examination papers bearing the 100-percent mark. Now, Doctor, most of my work in the course is done late at night, for I am in charge of a large work as physician and surgeon and look after the welfare from the medical side of at least nine hundred persons; beside this I also attend to quite a large outside practice. So you see I have but little time for anything but work.

I manage to read CLINICAL MEDICINE, if I do have to let other journals pass by. It helps lots of times because the ideas of some of the "family" appear there.

In regard to some of the knocks that other journals are trying to give the alkaloidal products, they cut no ice with the bedside doctor, the man who uses them and gets results. We care not what others say in condemnation but go right ahead, for while we are not all from Missouri they must show us just the same.

I am convinced, Doctor, that the "family" feel kindly toward you and your coworkers because of the great help you are to them in more ways than one, chief of which being that you give us good, pure, reliable, active principles. You certainly are doing a good work in making our profession an exact science as well as an art. Wishing you all success in your work,

D. O. THOMAS.

Johnetta Boro, Pa.

EMETINE.—THE POST-GRADUATE COURSE

It is with some timidity that I approach the readers of this journal for a short chat in the interest of our profession. But knowing that it is the many drops of water that make mighty streams, I offer my mite.

To begin with, I will say that I am a new convert to the philosophy of alkaloidal treatment, and my experience thus far has been one of pleasure and profit. Nowhere yet have I met with disappointment in the prompt action of the active principles, and this has given me confidence in their virtues from a medical standpoint. My first experience was in a prescription that I once gave to a lady for a cough. It was composed of white pine compound with emetine granules. I was using a shotgun plan, thinking that if one kind did no good the other might. Result: in a few days the lady sent her little boy to my office stating that she wanted some more of those granules, that so long as she took the *granules* her cough was better. This was a revelation to me, namely, that the virtue of my shotgun

prescription was in the emetine granules and not in the white-pine combination—

I might mention other experiences that I have had with the granules, and I have had good results in all my cases. This gives me implicit faith in their medicinal virtues. Theory is becoming fact with me in my practice in regard to them. I have always been slow to endorse a new theory and have followed the same course as to the granules, but the evidence has been all in their favor.

Now as to the Postgraduate Course. I have been asked for an opinion with regard to the good it may do for the profession. My answer is: It is a grand move in the right direction; it will be the means of bettering our own social conditions; it will be the means of making us active and creative members of our noble profession, instead of mere passive floaters. We, as members of the "family," should feel grateful toward the faculty of this course for the pains they are taking in our behalf in this direction. It has been intimated to me that the faculty was grinding an ax of its own in this matter, to which my answer has been, "Let them grind—we are getting sharper during the process." Again, this course will make us better acquainted with the chemistry of drugs and their application to the needs of the diseased human body. When we can practise medicine from this standpoint we shall not follow the cut-and-dried plan so much.

I believe a postgraduate course down the entire line of the different branches of medicine would be a grand move in the right direction. What say other members of the "family" in regard to this matter? We know that the organic kingdom in the vegetable world contains many elements of matter that are found in our human bodies. Now when we know how to make the application of these elements of the vegetable work to the wants of the same elements in our bodies, then it is that we look for good results in our noble profession. After the science of therapeutics comes the art of its application in order to get the best results in our work. When this is done, we may need a new formula for each one of our cases.

I mean by this that each case should be a law unto itself for us to consider in our work at the bedside. Until we are able to do these things there must be some guess-work in our processes and our patient is the victim. The postgraduate course is for the purpose of helping us to avoid guess-work in the measures we employ for the relief of our patients.

W. A. FERGUSON.

Brighton, Ind.

FACTS CONCERNING ATOMS AND MOLECULES

To the many perplexing problems which present themselves to the busy practitioner of today there is added a very interesting and important one relating to atoms and molecules. The development of synthetic chemistry in the last fifty years has brought these terms very commonly into use in every sphere of intellectual activity. So general in fact has their use become that the student whose range of work, whose specialty we might add, lies outside the domain of chemistry proper, rarely questions their real significance. Like things become so common that the critical eye of the keenest observer ceases to behold them, these terms form a part of the vocabulary to be used axiomatically. They are employed to convey ideas of definiteness and concreteness, but rarely, on analysis, do they do more than transmit ideas of a very vague nature, indeed. Inasmuch as chemistry has so enriched the armamentarium of the physician and has added to his *materia medica* so many invaluable compounds built up in the chemist's laboratory of atoms and molecules; inasmuch as nature's own workshop has been compelled to divulge so many of her priceless secrets for the use of medical science; a word, to those whose life's business has compelled them to relegate to dark and unused recesses of the mind all thoughts of the specific significance of atoms and molecules acquired at the university, may have, it is to be hoped, a refreshing and useful effect.

Not burdening the reader or ourselves with the conceptions entertained by the

ancients, the Greeks and Romans, and the medieval alchemists, concerning matter, we will enter directly upon the subject of these few paragraphs. Matter, first of all, the chemist tells us, is constituted of elements.

In order to make clear what is meant by elements let us select as a material example water, and subject it, by means of an electrical current, to a process known as electrolysis. By this procedure water is decomposed, forming two gases, hydrogen and oxygen, possessing many distinctly different characteristics. Every effort on the part of scientific investigators to redivide these gases into other substances have been baffled. The phenomena and the laws governing the phenomena of those substances have been studied and deduced, and all facts gleaned up to the present status of science relating to them compel us to view them as matter in an elemental form, and hence, these constituents of water—hydrogen and oxygen—are termed elements.

By means of various chemical processes, involving the aid of heat, light and electricity, as many as seventy-eight elements have been isolated. It required many years of painstaking labor to evolve a theory which would account for the phenomena of these elements when brought into contact with each other, in other words, to explain chemical activity. Many interesting and laudable hypotheses were advanced which, one after the other, were felled by newly discovered facts. It was not until the present atomic theory was deduced that the science of chemistry was placed on a firm foundation.

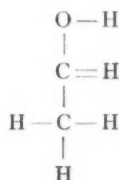
According to this theory each element is made up of particles termed atoms, of definite weight, infinitely minute, no one in contact with another and chemically indivisible. These particles possess an attraction for one another and group themselves into twos, threes, or fours, according to their nature, thus forming what are termed molecules. Molecules then are made up of atoms. In case of elements they are the same kind, and in case of compounds they are of different kinds. It is difficult to state with any great degree of certainty who first conceived the idea of matter composed of atoms.

The merit, however, of this conception, the atomic theory, is generally accredited to John Dalton, born in England in 1776. Among those prominent in developing and establishing this theory may be mentioned Berzelius, Davy, Guy Lussac, Berthollet, Mendelejeff, Lothar Meyer, and many others of note.

Dividing matter into compounds, and compounds into molecules, and the molecules in turn into atoms, determining and ascribing definite weights to these smallest particles, using hydrogen, which is the lightest of all elements, as a basis or unit, is a work which is accomplished by means of the atomic theory. The relative mass and volume of these atoms have been accurately determined by the chemist and remain as unquestionable facts of science. What the real mass and weight of the atoms are, is yet but a matter of speculation. Philosophers, whose field is that of the speculative and theoretic, have produced some very interesting work along these lines. By a series of very simple and lucid arguments Marc Antoine Gaudin, in a work entitled "*L'Architecture du Monde des Atomes*," demonstrates the presence of 8,000,000,000,000,000,000,000 atoms in a cube of metal but 0.002 mm. in thickness. It is perhaps more difficult to imagine particles so minute than it is to have a conception of the distance separating the earth from the most distant of stars. The chemist and those who have to do with the composition of matter bother themselves but little with such speculation. For the practical work of such it suffices to give any volume to the atoms with which they are dealing. The atoms may be regarded as being as large as tennis balls, or any size in fact which will enable the mind to group them in their right relation in the molecule of which they are to form a part.

Each atom has its symbol. H represents hydrogen; O, oxygen; Fe, iron; Cl, chlorine; Au, gold; C, carbon, etc. By means of these symbols formulæ are constructed to represent the molecule, thus C_2H_5OH represents a molecule of grain-alcohol; HCl , hydrochloric acid, etc. There are several kinds of formula made use of to represent

the molecule. Thus we have the empirical. C_6H_6 is an example, giving, as is seen, but the number of atoms in the molecule without illustrating their position or relation. There is the rational, or constitutional, of which C_2H_5OH may be selected as a type. This kind of formula gives the relation of the atoms, but does not illustrate the positions. The graphic formula, however, gives the number of the atoms, their position and relation and is designed to represent clearly the composition of the molecule. The graphic formula of acetic acid for instance is represented thus:

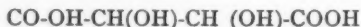


It is therefore readily observed that the empirical and rational formulæ, which are those which the physician most frequently encounters, are but suggestive of the real composition of the molecule. Proceeding a step further into the intricacies of chemical formulæ we encounter a phase of atomic arrangement which is termed isomerism.

Chemical analysis has brought to light the fact that a great number of compounds differing in their physical and chemical properties possess the same percentage composition. Such substances are said to be isomeric. Sometimes the isomeric bodies contain the same number of similar atoms in molecules of the same size and differ only in the arrangement of these atoms; at times they contain similar atoms united in the same proportion but not in the same number in molecules of unequal magnitude. These constitute two kinds of isomerisms. The first is termed metamerism; the second polymerism. Acetic acid, $C_2H_3O.OH$, and methyl formate, $CH_3O.OCH$, are examples of two metameric bodies. Examples of polymeric bodies are acetic acid and glucose. $C_2H_4O_2$ —acetic acid; $C_6H_{12}O_6$ —glucose.

During recent years yet another form of isomerism has been noted. Atoms consti-

tuting molecules may not only be the same kind and number but they may even be similarly grouped. Tartaric acid for instance which has the formula



exists in four distinct modifications: dextro-tartaric acid, levo-tartaric acid, mesotartaric acid and racemic acid.

It is not within the scope of this article to elucidate the theories which account for these curiously intricate facts. It suffices to call the physician's attention to their existence. He will be enabled to give some account at least for the differences exhibited in the physiological action of certain vegetable derivatives whose chemical formulæ to all appearances proclaim them to be identical. This brief sketch on atoms and molecules, it is hoped, will be an aid to a clearer understanding of the terms and evidence the fact that chemical formulæ can signify but little save to those who seek to master chemical science. There will always, however, remain to the physician a decisive means by which he may know that with which he deals, i. e., the results of personal observation.

J. W. FORBING, B. S., Ph. C.
Chicago, Ill.

CONSTIPATION OF INFANTS AND INFANTILE COLIC

There appears to be a growing tendency to constipation of infants from various causes, faulty diet being chief, in my opinion.

The nursing babe often suffers from the effects of the mother's mode of living—unsuitable, unassimilated, irregular diet, etc.—that she herself has not given a thought as having any connection with her offspring's indisposition, and which, with good medical advice, patience and perseverance, may be corrected; provided she has the good sense to follow the advice given, without resorting to drugging and dosing through the suggestions of aunts, cousins and neighbors.

Whatever the cause, the conditions must be changed if we expect results. However, so few mothers are willing to subject them-

selves to a plain, laxative, wholesome diet, with but a small allowance of rich pastry, spices, strong tea, salt meats, rich gravies, etc., that it is discouraging for a physician to attempt to mend matters in this way when there is such a long list of pleasant purgatives to choose from and which the patient, as a rule, will accept with more confidence than the right way of correcting their own habits.

Yet, the correct and honest thing to do is to remove the cause, if possible. Infants fed on cows' milk are more subject to constipation than breast-fed ones, but when cow's milk is used, if fresh milkers can be obtained the results are more satisfactory and constipation less liable. But, if it does occur it often can be remedied by giving a little less of the milk, properly diluted, according to the age of the babe, and adding cream, olive oil or any of the fats that seem to answer the purpose best, according to each individual case and the advice of the physician in charge.

When neither the breast-milk nor milk of the kine can be satisfactorily utilized for feeding, we have yet the varied class of infant foods to choose from. Horlick's malted milk never constipates and sometimes acts as a slight laxative, while Eskay's is the opposite and a most excellent food when there is a tendency to be lax. Then we have Henri Nestle's food, which contains more starch, perhaps, than any of the foods extant; and though starch has so often and so strongly been condemned, it many times fills the bill for an all-around infant food when the whole category of other foods have failed to nourish or be assimilated. Mellin's Food and Allenbury's are great favorites with many, and dozens of others, including Bordens condensed milk, which should all be given a fair test in order that the very best possible food may be provided for these little fractions of humanity whose whole life may be more or less influenced by the proper or improper use of the food-producing material the Great Creator has placed at our disposal to build up strong men and women, rather than those weaklings that are set adrift in the world

by improper, irregular diet in childhood causing indigestion, flatulence, bowel and stomach trouble, colic, and that long train of ailments incident thereto, too numerous to mention.

Too frequent or overfeeding is the cause of more irregularities than a scant diet, though a babe that is hungry is uncomfortable and fretful; hence the quantity and quality should be determined carefully by the capacity of the babe's stomach, as babes of the same age will not always thrive on just the same allowance. One may cry with hunger on what would be a full sufficiency for another, another may require a food richer in fats, and so on, all of which should be closely watched if we wish to avoid colic.

Very few babes cry with colic that are judiciously fed in suitable quantities, unless through neglect they are allowed to go with cold feet—another source of infantile colic, that usually may be overcome by diluting the food with two-thirds water as hot as the babe will take, giving plenty of warmth externally with soft warm flannels, hot water bottles, or any convenient vehicle of heat, until there is warmth without and within.

An incubator is a grand thing for the newborn or very young babe, especially if for any reason it is not thought advisable to give it a place in the bed beside the mother. It is my impression that the day is coming when incubators for infants will be manufactured by wholesale in a new and improved style and placed on the market as a portion of the necessary outfit awaiting the stork's arrival.

In conclusion I have to say to the young and timid physician just starting out, it will be well not to be too modest about seeing that his orders are obeyed, as even when he has done his best, there is a possibility of being unjustly censured (as I have seen) in case the babe does not thrive well. When the mother or nurse, as the case may be, through negligence or stupidity pays little or no attention to the quantity, quality, cleanliness or time of feeding prescribed, it lends dignity to the physician to insist on being obeyed so far as is reasonable. Cleanliness cannot be too strongly urged,

scores of babes, as we all know, with their mothers, have come to their death for lack of it.

C. M. H. WRIGHT.

Blaine, Ills.

[We agree with Dr. Wright, that every case of infantile constipation should be corrected by hygienic and dietetic methods, if possible. This is particularly important in cases showing a tendency to chronicity. It is true, however, that many emergencies exist, and always will exist, in which laxative medication for the babies will be demanded. In such cases it's simply a case of choosing "the best."—Ed.]

STRYCHNINE POISONING IN THE DOG

I have seen much adverse criticism of late on the composition and therapy of the H-M-C, which leads me to report this case in which it was used successfully in strychnine poisoning.

My pet English bulldog obtained some meat saturated with sulphate of strychnine, which was bated for the pestiferous rodents occupying my cellar. The furnace room being separate from the vegetable room, and containing only the furnace and coal, we did not think the pestiferous rats would convey the poisoned meat into this furnace room, and the dog was not forbidden to follow any one who was looking after the furnace. But it seems that our confidence in safety was unfounded. The dog came from the cellar with our hired help, and in less than fifteen minutes fell over with a tonic convulsion; instantly I recognized the cause and "drenched" him with milk and lard, but with little or no effect. I also gave by mouth 30 grains potassium bromide and 15 grains chloral hydrate; but the tonic convulsions continued unmitigated, repeated about every three minutes, until I gave him up as a dead dog. "He was as stiff as a poker" and opisthotonic, eyes open widely, and insensible to touch or light. At this junction I gave him hypodermically one tablet H-M-C and in fifteen minutes he became more quiet, and in thirty minutes he was relaxed and

seemed to be asleep. In five hours he had another spasm of a much milder type; the H-M-C was repeated (in full doses) hypodermically, which allayed all the symptoms of spasm, never to return, and today he is as well and frisky as ever.

Of course one case does not establish a fact, but we have that much faith in the H-M-C: were any of the genus homo, under my care for strychnine poison, I should use it, as I did in the case of my dog, and should expect a happy result.

Now, Doctor, I send you this simple statement of a case which happened ten days ago, that others may try and prove its efficacy and thus possibly save the life of an unfortunate.

I have not attempted, and will not, to differentiate between hyoscine and scopolamine, but I do know that the combined effect of hyoscine, morphine and cactin is one of the greatest discoveries, equal to that of chloroform, and in many respects, superior, as a cerebrospinal sedative.

C. E. BEARDSLEY.

Ottawa, Ohio.

REMEDIES FOR MALARIA

A short time ago a copy of a medical journal fell into my hands and in it I noticed an article on the treatment of malaria without quinine. The writer referred favorably to some half a dozen remedies which he or others had used for that purpose, but he failed to mention two with which I have had considerable experience.

Beginning practice, some forty years ago, in a locality where malaria abounded, I often met cases in which quinine proved unfavorable. The first substitute I tried with success was hyposulphite of sodium. This remedy could be given easily in solution and almost all patients took it without trouble. Often I used it alone, with complete success, in breaking up the attack. In some instances it did not succeed.

Changing to another locality, where the malarial poison was more abundant and tending often to the pernicious type, I was not so successful, largely, it appeared, be-

cause so much larger doses were required, so that I got too much of a purgative effect and was obliged to leave it off.

I cast about for another remedy, and from some source, not now recalled, I was led to try ammonium picrate. This has never disappointed me. It is especially satisfactory in old chronic and "third-day," cases, but answers in all kinds. Never using more than 1-3 grain three or four times daily, it invariably checked the most obstinate attacks, and so thoroughly were the patients relieved that relapses were very rare. Even in children too young to take capsules it did good work, although its intense bitterness made it a disagreeable dose in solution, which was necessary for little folk.

In giving this ammonium picrate in capsules I always first rubbed it up with bismuth subnitrate, sodium bicarbonate, or some other remedy which happened to be indicated for the purpose of preventing irritating action on the stomach. I never met a case that showed idiosyncrasy against its use as I often have for quinine.

J. B. DRAPER.

Oswego, Kans.

[Sodium hyposulphite is a favorite with the eclectics—also with photographers, as a "fixing" solution. The eclectics recommend it where there is a broad, pale, flabby tongue, with whitish coat. It is an intestinal antiseptic, as well as a laxative, and that is probably the explanation of its success in malaria. As we have often pointed out, intestinal toxemia is a factor which is too often overlooked in the treatment of this disease. Clean the bowel out well, stimulate gently the action of the liver and keep the primæ viæ as nearly aseptic as possible, and these cases will improve—yes, often recover entirely—with minimum dosage of quinine. In our opinion the massive dosage of this alkaloid is rarely needed, the small, frequently repeated doses of the arsenate or the hydroferrocyanide usually doing the work, providing "clean up and keep clean" is made the first and fundamental thing.]

Ammonium picrate has some reputation as an antiperiodic. Just how it acts seems

to be unknown, though we suspect that its antiseptic quality is really the explanation of its therapeutic activity. It should be remembered that picric acid is formed by the reaction between nitric acid and phenol.—ED.]

WHY DO I LIVE SO LONG?

II

Soon after coming to Andover I was prostrated with the severest attack of sickness of my entire life. It manifested itself externally as scarlet-fever, but the attending physician, Dr. Howard, pronounced it a case of intestinal inflammation. He was a true eclectic, for he was a graduate and practitioner of the regular school and used also eclectic and homeopathic remedies. I was in delirium the greater part of twelve weeks, and all I recollect of the acute febrile stage is the excruciating pains I felt on the left side of the chest between the precordium and the scapula, which I then imagined to be no wider than the thickness of the hand, and I wondered how a morsel of food or a mouthful of water could pass through there. This pain has never ceased to attack me sporadically up to this present day. The attack does not last more than a minute, sometimes even less, and is instantly relieved by Hoffman's anodyne, sixty drops, or by eructations of gas from the stomach spontaneously or induced. When not thus relieved the system is left exhausted for some hours. The seat of the trouble seems to be about the cardia, and I hope a careful necropsy in due time will give the profession some light on this obscure and rare affection.

After my graduation from the College of Physicians and Surgeons of the University of the State of New York, on October 31, 1859, I practised medicine for a few years in Salonichi and Bitoglia-Monastir, European Turkey, and then went to Vienna, to attend the clinics there. In the war of that country with Italy in 1866 I applied for a medical commission in the Imperial Navy and was received, after passing a literary academic examination in the University Academy of Vienna.

Being accepted, I was commissioned surgeon on board the *Feuerspeier* Battery, off Venice, Italy, and then on the corvet *Seehund* when it was present in the battle off *Lyssa* in the Adriatic Sea, July 20, 1866, under Vice-Admiral William Tegethoff against the Italian fleet under Admiral Persano, who had double our number of vessels and men. All the same we beat them, destroyed two of his best vessels, one of them the *Ré de Italia*, built in New York by General Webb, the other the frigate *Palestro*, and drove him away from the Austrian Coast in an hour and twenty minutes. We had very few casualties. This was the first battle that was ever fought by iron-clad propellers. The devotion of our men and officers to our great Admiral won the day. It inspired me to write a description of the battle in English verse and I dedicated and presented it to the great Admiral and man, who thanked me for it in an autograph letter, and said it reminded him of Byron's description of a sea storm in his *Don Juan*. I received a present of three hundred dollars from Emperor Franz Joseph for the poem.

After the war was over I was entrusted with the supervision of a naval smallpox hospital at Pola Dalmatia. The people of that part of Austria were generally of the ignorant antivaccination fanatics seventy-nine and more years ago. I had on an average sixty patients all the time, with some very severe confluent cases. The mortality did not amount to one percent. The treatment was *pro re nata*, but the external application to the exposed parts of the body was plain cold water, which answered very well. I did not revaccinate myself, relying on the efficacy of my vaccination in childhood. After two months I was ordered on the cruising side-wheel steamer *Dalmatia* then plying on the Austrian Adriatic coast. I was on that duty for some months and then applied for dismissal in order to return to the United States, and was honorably discharged.

In Vienna I fell in with some American friends who gave me letters of introduction to their friends at Leavenworth, Kans.,

where I opened practice and continued there for some years. Here I had a severe attack of gastritis which confined me to my bed for a few weeks and left me with a very poorly digesting stomach, which was specially intolerant to simple water. I had to drink cold tea, which became disagreeable, and then I took to drinking simple carbonated water, which relieved me completely after about a year's time.

An old uncle who came over with me on my first trip to this country and then located in Cincinnati learned of my second arrival and began to urge my coming to that city and offered to afford me every facility to open a good practice. I accepted the offer and practised there for nine years, and in the last year I met with the saddest event of my life, the death of my then only son, from my second marriage, five years old, by the accidental administration by a druggist of three grains of morphine instead of quinine. He was an unusually bright and beautiful boy from his very birth. It came nearly breaking my heart and ending my life. I could not practise medicine any more and I gave it up to accept a professorship in Heidelberg College, Tiffin, Ohio. A religious disagreement with the faculty of the college, which was theological at the same time, made me sever my connections from it, and I went to Yankton of what then was Dakota Territory, and thence to Vermillion to organize what is now South Dakota University, whose first president I was till sectarian and political chicanery ousted me, as it did a half dozen other men from the same office. A professorship was then offered me in Bethany College, West Virginia, which I accepted and continued for a few years in that capacity. During my first year here my hereditary polyuria (or better said, polakisuria) asserted itself during a very cold winter and our living in a cold house.

I then relinquished the place to begin practice in the neighboring town of West Liberty, this being in the early nineties of last century. It was here that I became acquainted with the alkaloidal method of Burggraeve, known in France and else-

where as the dosimetric practice of medicine, and which at my suggestion is also known in this country as "alkalometry." This has been successfully advocated and illustrated in this journal as well as in its predecessor, *THE ALKALOIDAL CLINIC* of pleasant memory. I soon became a regular contributor to *THE CLINIC*, and when I became disabled for further country practice in 1898 by a severe acute attack of diabetes mellitus, described in *THE ALKALOIDAL CLINIC* of 1899, pp. 427 and 877, I came to Chicago on the invitation of Dr. W. C. Abbott to recuperate my health. He kindly invited me then to become a member of the editorial staff, on which I am still active at this moment as the "Gleaner in Foreign Fields" and in other departments.

In 1903, on the 7th of March, I met with a severe accident to my right knee by an unaccountably wilful neglect of a street-railroad conductor on Madison street, west of Halsted. I had to go west on Madison street, a grip-car and two trailers came and stopped near the crossing of Halsted and Madison streets. An old woman came down from the rear steps of the last car. I had a satchel and an umbrella in my right hand. I took hold of the stanchion of the rear platform with my left hand and put at the same time my left foot on the lower step of the platform, and before I had time to put my right foot on the same step the conductor who stood on the platform, close to the rear dashboard, rang the bell and the car started briskly forward. I saw the danger I was in when the start threw me partly round with my back to the car. To take down my left foot from the step and let go my hold on the stanchion would have been to run the risk of fracture of the left leg by the crash of the platform steps against it and also of my being thrown forward onto the ground and meet with various possible injuries external and internal. My safety lay in not letting go of the stanchion but to let myself be partly dragged along and partly jump after the car with my right foot. I hoped the conductor would stop a second or two and let me either off or on the car,

but instead he caught me by my overcoat collar and dragged me along. And so I was dragged on and jumped on for some forty or fifty feet, I making heavy thumps with my right foot on the ground three or four times.

At last the car slackened its speed somewhat, my collar was released and I was jerked off of the car onto the street, the conductor not stopping a moment to help me. While falling into the mud (it was a rainy day) I was caught up under my arms by two young men, who voiced forth like saving angels, "Old man, you shan't fall into the mud!" They carried me onto the sidewalk and then to the vestibule of the hotel on the northwest corner of Halsted and Madison streets. I was laid down on the floor, and I told them to go for a physician to the Illinois Medical College on the next corner north. The supine position with head unsupported was very uncomfortable and I told the crowd of people to set me up carefully on the lower step of the staircase leading up from the vestibule. They did so and I then fainted.

When I revived I was in profuse perspiration and was glad to see my friend Dr. Frutchy by my side. Only a half hour before this I had been at a surgical clinic with him in the Illinois Medical College. We carefully examined the limb and found neither fracture nor dislocation, but motion of the knee was very painful and standing on it was impossible. I was carried in a police ambulance to the Northwestern Depot, thence onto the train to Ravenswood and to my residence on Eastwood avenue, was handled very carefully onto a lounge and the injured limb carefully supported right and left so as to secure immobility for the present the best way possible. I ordered cold water compresses around the knee-joint, and it being already late in the evening I did not send for any medical help.

I came to the conclusion that I met with a very severe outward twist and sprain of the right knee, the injuries being mainly in the popliteal space, the bundle there of artery, vein and nerve, and the popliteal muscle beneath them, the pain, both spontaneous

and on touch, being chiefly there. Rest was the chief indication and this the entire limb had for over four weeks, I not coming down from the lounge during that time. When I finally left the couch I took at once to the use of crutches so as to obviate as much as possible painful pressure of the articular surfaces, and I am using them to this day. To prevent any consequent stiffness of muscles and any atrophy I had the muscles around the knee and on the leg gently massaged daily for about two weeks. A few days after the injury the entire limb below the knee became intensely ecchymotic and went through all the colors of the rainbow in the period of about two months. From this I concluded that the popliteal vein was ruptured.

To prevent any synovitis or bursitis I had the knee and some inches above and below wrapped round with cold, wet towels covered with dry ones, changing them as often as they became hot, day and night, for four weeks. Under this treatment I came out without an effusion into the joint, but with a permanent pain in the popliteal space, sometimes more and sometimes less localized and radiating up and downward, and always aggravated by the change of the weather for the worse. There must have been an injury to the nerve. I cannot either extend or flex the injured limb as much in walking as I can my healthy left limb and I am compelled to make half paces only in walking. There is also a limitation to the flexion of leg on thigh to about half. In going up stairs I progress with the left limb and pull the right one up after it, and going down I descend cautiously on the right limb and bring down the left after it, thus preventing any normal full flexion of the injured knee by normal alternations of the limbs in ascending and descending of stairs. Bearing the weight of the body even on both knees is impossible without pain in the right. Walking has to be slow and exercise is out of the question, and constipation is the consequence with all its consequent evils, though digestion and appetite are good.

What the pathological condition of the tissues in and around the knee is would be

very interesting to know. An x-ray examination revealed nothing. I solemnly request here my friend Prof. B. Brindley Eads to make a careful dissection of my right popliteal space when I am dead and he survives me, or in the adverse case that some other competent surgeon should do it. Sprains are meagerly treated of in textbooks, and in reviewing many books on surgery I have met with but one tolerable literary treatment of this subject, namely in the third volume of Bryant and Buck's "American Practice of Surgery," 1907. My injury should be photographed and colored and compared with my normal left popliteal tissues.

And now, considering what I went through during my life, the diseases I passed through and the effects they left behind them, considering, too, the severe mental distresses that I passed throughout my life—religious, social, pecuniary and of family life, some of which will never be disclosed and will not terminate except in my death—all of which sufficient to shorten an ordinary life (and I am an unusually sensitive being), considering all these, why then do I live so long? I have never done anything special to preserve me so long in life, nor do I write these lines now in decrepitude of either mind or of any bodily functions and natural appetites.

What was, what is, there in my favor? First of all, inherited longevity. Secondly, a moderate indulgence in all the appetites of life. Thirdly, the regular and pleasing literary life I am enabled now to lead these last ten years by the appreciative kindness of my friend, Dr. W. C. Abbott, in whose great work, "doctors for doctors and a square deal for every one" I am proud to have my part and to whom, as strength permits, I give unstinted service and loyalty of my heart of hearts, only regretting that my years (unless it comes quickly) will not permit me to see, with and for the profession I love, the full fruition, for them, of the principles for which he stands. Fourthly, absolute exemption from any gonorrheal and syphilitic taint.

Lastly, I look for the coming of the great, strong brother Death without enthusiasm, but also without dread. "Into

Thine Hand I would commit my spirit, Thou hast redeemed me, Jehovah, God of Truth." (Ps. 31:6.)

EPHRAIM MENACHEM EPSTEIN, M.D., A.M.
Ravenswood, Chicago, March 1, 1908.

AGRIMONY

This remedy has been mentioned in connection with my name in your excellent journal lately, but from the remarks of some of the correspondents, it seems that very few physicians use it at all.

In your reply to O. G. on page 569 of the April number of *THE AMERICAN JOURNAL OF CLINICAL MEDICINE* you indicate that it is seldom called for, and that any specimen found in the ordinary drugstore will be inert. You are right. The only way to get a reliable article of agrimony is to send to Lloyd Brothers or Wm. S. Merrell Chemical Company, both of Cincinnati, Ohio, for it, unless you are near an eclectic drugstore.

The normal tincture (Merrell) or the specific tincture (Lloyd) may be given in 5- to 15-drop doses, every six to eight hours. Or if you want an easy action on the stomach, put two fluid drams of either of the above preparations in four ounces of water and give a teaspoonful every two hours when awake.

The action of agrimony is not that of a simple astringent. I have used it in two disease-conditions: First, in bronchial asthma, where the secretion was tough, sticky and excessive, and causing spasmodic efforts of the lungs to expel it, with much coughing. It has given me great relief in a short time. Second, in pain due to chronic renal inflammation. It is far better than narcotics, as it relieves the pain just as soon as they do, and tends to heal the kidneys. In renal and cystic congestion, with a great deal of pain and much mucus in the urine, agrimony will give speedy and continued relief.

In conclusion I must protest against the statement that my home is in Washington, D. C., as your correspondent assumed. It is in the wonderful State of Washington, lo-

cated at the northwest angle of the United States south of Canada, in which are the famous young cities of Seattle, Tacoma and Spokane, and where in 1909 the great Yukon and Pacific Exposition is to be held in the city of Seattle. Any of the brethren who want to see something extraordinary in scenery, resources, rapid development and unequalled prospects ought to come out here in 1909 and be astonished.

THOS. W. MUSGROVE.

Sultan, Wash.

SMALL DOSES OF SALICYLIC ACID

For a number of years a bottle of the granules of salicylic acid, gr. 1-6, has lain on my shelf, and it is only in the last month that I have used some of them. I am surprised at the result of the use of these granules in acute rheumatic conditions when given in doses of gr. 1-6 every fifteen to twenty minutes. I know of nothing in all my experience which so quickly reduces temperature and allays pain in these conditions. I never used them before for the simple reason that the dosage looked so small.

My method of treatment in these acute rheumatic conditions is as follows: Colchicine, gr. 1-134 each, two granules three times a day, increasing the daily dose one granule each day until the bowels are purged freely. Then drop back to one granule three times a day, or just sufficient to keep the bowels acting once or twice daily. I sometimes observe some nausea, especially on the day when there is free purging, and during this period I seldom administer any other remedy because the patient is liable to become disgusted with other treatment, never thinking that the nice little yellow pills would occasion any such disturbance. When the bowels have ceased purging give salicylic acid, 1-6 grain every fifteen to thirty minutes. There is always a decrease in temperature and relief from pain. Order warm magnesium sulphate (1:16) baths. Calcium and lithium carbonate compound before each meal with plenty of water following, or perhaps calx iodata, 20 to 40 grains each day.

Leave the patient with a good tonic, and above all, don't forget to leave him with enough colchicine to keep bowels moving regularly.

I have had some cases lately who have been treated with the above who think that I'm a "messenger from God." They'll continue so to think "until recompense is asked."

W. W. BAILEY.

Le Claire, Ia.

[This is not only a practical little article—it's good "horse sense." Dr. Bailey is cordially invited to "call again."—Ed.]

HELENIN

Several times this winter I have given helenin, gr. 1-6 three times a day, in cases of acute bronchitis in the declining stage. Two cases had been on terpin hydrate and heroin, without improvement, for seven and ten days, respectively when I began the helenin. Both cleared up in six days. Two others, which I did not see until late, I put at once on the same dosage of helenin, with similarly rapid improvement and cure.

Another patient took the drug for two days and then refused to continue, stating that it made him worse. This was a chronic bronchitis of thirty years' duration.

Judging by the prompt amelioration of symptoms in these few instances, I believe helenin is a valuable drug and is worthy of extended trial. I shall use it whenever indicated, and report again.

MALCOLM DEAN MILLER.

Boston, Mass.

FIBROID TUMOR COMPLICATING DELIVERY

I was hurriedly called to see a parturient mother attended by a midwife. She had been delivered of a good-sized baby, full of life, three-quarters of an hour before my arrival.

Something strange, indeed very strange, had happened which the midwife could not understand. The placenta had come down

with another body, and which was nothing else than a fibroid tumor the size of a quart bottle, attached by two roots to the womb.

Now, the thing remarkable in this case is that the placenta and the amniotic sac were attached to the body of that tumor—as high as the neck. Very likely the midwife had pulled on the placenta and detached it, at its border, from the fibroid.

The patient had been bleeding profusely and before I could render her any assistance she collapsed and expired in my hands. I endeavored to tie the tumor as high and as tight as it was possible, but as you can imagine, all my endeavors to save the mother were futile. Hypodermic injections of suprarenalin, strychnine and glonoin were used.

Has anyone ever seen such a case, read of such an occurrence? Could the woman have been saved by any surgical procedure at that critical moment, if she had been attended from the start by a doctor?

F. D. ORBESSAN.

Ozone Park, N. Y.

THUMB-NAIL SKETCH; CHAPPED HANDS; RECTAL TROUBLES

Two very annoying troubles that come to the physician's attention and which are obstinate and slow of cure are the following: First, chapped hands; second, rectal protrusion, piles and hemorrhoidal masses.

For the first, the very best application I have ever used is the following: Wash the hands clean and dry thoroughly. Moisten slightly a cake of "ivory" soap and rub the hands all over freely, filling the chaps and cracks. This smart at first but soon is analgesic. (In passing, this treatment is fine for slight burns.) Make several applications in case of chapped hands, till the hands are well incased in soap. With light cotton gloves you can now defy the cold and wind. As the soap wears off add more. You will find the hands are more easily washed and keep clean longer. The old black, grimy hands are not present with you as before and the painful cracks that you used to fill with shoemaker's wax and whose

calloused edges required a sharp knife to remove are all a thing of the past.

Now, Mr. Editor, I am not writing an ad for "ivory" soap, and you need not publish the foregoing, but I am giving you a tip: Why not make a chapped-hands soap?

The rectal annoyances mentioned have caused many bad half-hours of suffering and



Dr. Cope at His Desk

discomfort, so that anything coming in this line will be doubly welcome. So many go to stool and have such a time to replace the protruded rectal mass, be it pile tumor or mucous lining, and after vain efforts, pain and bleeding, half walk or creep along slowly back to desk or work with that ever-present burning, stinging irritation that converts saints into sinners. Some use oils and salves, some hot water and some cold water, but all are but makeshifts and none really satisfy.

Reasoning from analogy, I said the rectum is a mucous membrane and in these conditions there is a lack of mucus. I said the saliva is a good lubricant of mucous surfaces,

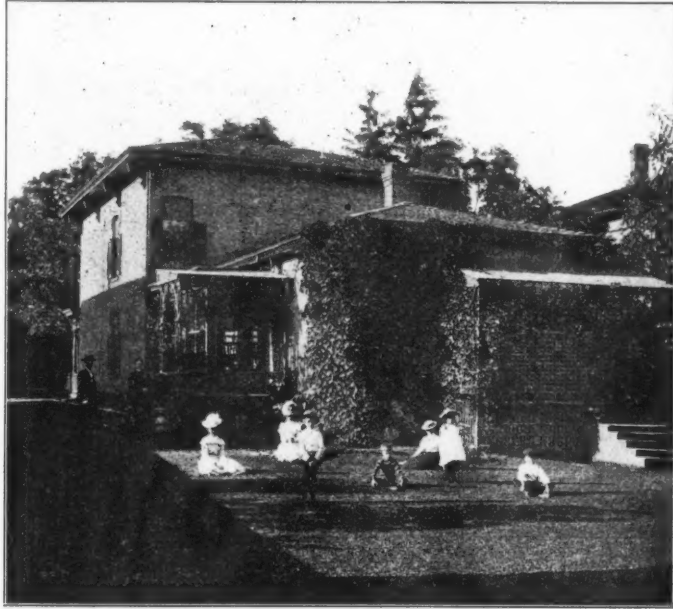
so I directed the patient to take with him plenty of toilet paper, and when through defecating, to moisten the toilet paper well with saliva and with this proceed to make the rectal toilet. As soon as one piece is used throw it away and use fresh and more saliva, using gentle pressure to force the mass up past the sphincter. A half dozen applications of the above will succeed in placing everything where it belongs, and the thanks of your grateful patients will testify to the relief given.

C. S. COPE.
Ionia, Mich.

[Dr. Cope's suggestions have the merits of simplicity and novelty. Instead of the "ivory" soap it might be well to use one which is mildly antiseptic. Does the Doctor intend to hint at that? The hint for restoring protruding piles and other rectal masses is good. Doubtless some of our afflicted brethren will try this themselves and report results. But why stop with relief only? Most of these cases are readily curable and a little time devoted to mastering the technic will put you in command of the situation. Why not prepare yourself to cure them?

On this and adjoining pages we are happy to be able to show some pictures of Dr. Cope and his family and home. He is very properly proud of that family and well satisfied with the beautiful old house—which to us unfortunates in a great city seems about all that heart could desire. Dr. Cope has intimated to us that he might sell, for the good wife's sake. He is anxious

to seek a more favorable climate. Perhaps some of the "family" would be interested in inquiring further. If we can judge by the "sample" shown us, Ionia should be an ideal place in which to live.—ED.]



The beautiful home of Dr. C. S. Cope, Ionia, Michigan

MINOR SURGERY IN THE WOODS

In surgery, as in medicine, the practitioner must sometimes resort to expedients, and fortunate is the doctor who can readily and quickly meet emergency cases and render the needed aid. Imagine yourself far out in the wilds of Northern Wisconsin, miles from the nearest railroad station or a town or village where a doctor can be had. You are suddenly called on to handle a case like this, for instance: a long scalp-wound running clear across one entire side of the head, and the gaping wound filled with sawdust, dirt and hair matted with clotted blood; a pair of scissors the only instrument with which to operate; no bandages at hand, no adhesive plaster, absolutely nothing but the scissors

and a tincup from which water can be poured.

With the cup and water the wound is cleansed, so far as it can be done. The scissors are then used to cut away the entangled matted hair, leaving little tufts near

a doctor must be able to meet the demands of these cases. A sharp pocket-knife is the only instrument to be had—nothing else. The patient presents the wounded thumb—no torn flesh, no abraded cuticle, but a black thumbnail, the dark sanguineous fluid show-

ing plainly under at least three-fourths of its under surface. It seems a small affair, but the owner of said thumb cannot work, cannot sit still, but walks the floor in severest pain and begs you to do something for his relief. Grasping his thumb tightly between your own and the index-finger you deftly cut a slight notch crosswise of the nail just at the commencement of the matrix, and



Dr. Cope, his wife and family, his oldest son also a doctor

the edge of and exactly opposite each other on both sides of the torn integument. Crossing these locks of hair, using traction to draw the edges together, they are deftly and securely tied and the patient started to the nearest point where the operation can be properly completed and stitches put in by some one who has the requisite aids for such work. Could this simple procedure have been improved upon under the circumstances? If so, how?

A workman driving nails unfortunately strikes the wrong one, namely, the nail on his left thumb, leaving a wound that under ordinary circumstances would be a simple affair. Six hours later there is an intense pain and urgent demand for relief. What is to be done? You are a professional man, a doctor, and the laity think you must render aid even if you are out in the wilds, miles from the needful accessories, and that

when nearly through the horny substance with the sharp point pierce through to the imprisoned fluid, apply suction with the mouth—letting the patient do this for himself—and presto! what a change. Pain gone instantly. If you were properly equipped and wished to remove the black, unsightly appearance of the wounded member, the use of hydrogen peroxide would speedily do the work.

W. H. H. BARKER.

Harvey, Ia.

SAM SQUASH'S REFLECTIONS ON CHRISTIAN SCIENCE

"What is the matter with Christian Science?" said I to my wife. "They seem to be proselyting all over now for that faith."

"The matter with it, Sammie? I think it is the same as always, no matter at all, for that matter."

"Well, I know, Mary, you believe half and half in it anyhow. But let me tell you right here, I don't believe for one moment it is what it is cracked up to be. It may be Christian all right, but I'll be hanged if it is scientific!"

"What makes you touch upon Christian science all at once this morning, Sammie, dear?"

"Well, Mary, I'll tell you. I have been considering the subject very seriously and thoroughly ever since our niece from Boston was visiting us here on the farm last summer, and I have read all those papers she left us. Now, I was thinking this morning of going to church, with you and the children, but really what is the use, as Christian science teaches us there is no sin. So there you are. I believe I am good enough and I simply stay at home. Does not Christian science teach us that sin does not exist?"

"Yes, Sam, but it is only for those that are strong enough in faith and believe that there is no sin."

"But didn't I just say that I believe I am good enough?"

"Sammie, dear, a man that frequently uses oaths is not."

"Mary, I simply don't believe that I do. Well now, Christian science teaches us that the only way to escape the penalty of sin is to stop sinning. But do the old Book and all the churches teach anything to the contrary? We boys nearly always got a thrashing if we did anything wrong enough to be worth paying back for."

"That seems naturally all right, Sam. But Mrs. Eddy was the first woman that ever was inspired to give to the world that most beautiful and sublime faith: that sin is no reality, that God has not created these miserable, shameful, dishonest vipers we all are."

"Hold on, Mary, dear, you are getting eloquent. But look here a minute. Did not God create the universe and all that is in it? Who else did? The Old Harry himself was knocked out in the first round, and I often wondered that he ever had cheek enough to come back."

"Sam, deary, please don't get vulgar. Don't talk that way about Christian faiths."

"It is not the faith at all, Mary, I am after, it is the science, the truth of the whole mess. I think Mrs. Baker Eddy, or what's her name, put a little too much leaven in the loaf she baked, so it got to be too light."

"Sammie, now again! Well you say, too light; good bread must be lightly baked to be digestible, and so it is an advantage to the followers of that cult that they can accept and believe. That is the leaven part of it, the solid part they can't digest themselves even, and nobody else. It has always been a snap to believe, but mighty hard work sometimes to understand. Now, Sam, I do really believe with Mrs. Eddy 'that matter is the error of mortal mind.' There are not supposed to be any real things in this old world. All we see, hear or feel is only imagination. Your niece Maud, of Boston, explained so absolutely clearly to me that it was so certain as that I know I am sitting in this chair."

"But, Mary, dear, are you sure you are really sitting in this chair? Do you feel it, do you hear it crack when you rock, do you see me or are you only dreaming? Oh, look out, Mary, it is a most morbid delusion."

"Well now, Sam, there is no use talking, Mrs. Eddy herself says—and she only ought to know—that matter and its claims to sin, sickness and death are contrary to God and cannot emanate from God."

"Mary, now if this be true then it follows again logically that God cannot be the creator of the universe, and all creation is a great illusory chimera, and all considered-sound humanity must have been entirely 'bughouse' till the arrival of Mrs. Eddy's doctrine. No, don't talk more about it, for your own sake, Mary. I feel sorry for you and more sorry for Maud, because she is worse than you are yet. The poor girl certainly felt provoked when she left us. You know she and I were debating fiercely and she came farther away from convincing me, although I am aware she was well versed in "scientific christianity." The culmination came though when I asked her to cure our old mare of mange without drugs, which she did not seem to know how to get at right,

and I asked her if she thought it easier to kill the potato-bugs with mind than paris-green, and she answered that she was no veterinary, neither was she much of a farm-hand. But she said she could cure all diseases of mankind without drugs, and you remember her assertions, which are all laid down in the would-be reformer's book:

"It is not scientific to examine the body in order to ascertain whether we are in health—because this is to infringe upon God's government." "The remote cause of all disease is mental." "Disease is less than mind, and mind can control it." "Agree to disagree with approaching symptoms of chronic or acute disease, whether cancer, consumption or smallpox." "You command the situation if you understand that morbid existence is a state of self-deception and not Truth of Being." "The only effect produced by medicine is dependent on mental action." So far her quotations from the 'Koran' of Mrs. Eddy.

"Can you imagine, Mary, how the unnatural assertions struck my 'common sense?' Why, it produced such a bewildering feeling in my mind that I really imagined I was driving the old mare to a death race, she fell and broke her neck. I went over the dash-board, was hurled through a wire fence, tearing my clothes to shreds, crushing my skull on a thick oak stump, lost thinking for a second or two, and when I came to I saw through the whole thing—and thank God it was all a Christian science illusion.

"Now, how about her curing diseases without drugs? She could no more do it than by pulling up weeds with words, even if her 'Koran' asserted that mind 'can control it.' Do you remember how she exerted herself in trying to cure your toothache, but could not and you finally had to go to the dentist for relief? Did she stop the blood-poison in Johnnie's hand which was produced by a rusty nail? No, the poor boy would probably have died had he not gone to a good physician. But her climax to feel discouraged with me came though the time the hog cholera came around. You remember, Mary, I wanted her to try her 'exalted' influence that time as a veterinary. I could

not see why it was not as feasible to cure my hogs with Christian science as to cure a human being, because as said, 'mind is over matter,' and as a hog has very little mind to disbelieve with but all kinds of matter it seemed logical she should try it, and as it did not matter if she minded not to go to the 'home' of her patients or she preferred to sit in the parlor, 'mind' according to her theory ought to penetrate through all matter, and it would not matter whether she knew what really was the matter with her patients or not; in fact, as stated before, I really do believe she thought it infringement 'to examine the body in order to consider whether it be in health'—'because this is to infringe upon God's government' (Mrs. Eddy's own words). But what does it matter?—'there is no matter.' There are no cholera bacilli, there is no trichinosis nor tubercular meat, there are no contagious diseases, there is no material cause of anything, there are no crazy lunatics—all, all is only imagination, a whole delusory chimera of individual error!

"Good bye, my old friend, thou soundest of all, good 'common horse sense!' You are far behind the times, your imagination is not eccentric enough. Ascend on your sylphian wings above all real things, all worthy 'commonsenseness,' then throw yourself into the abyss of darkest obscurity, where no intellect, no true science has ever been traced, and you may get to be nearer affiliated with this occult sect without knowing the slightest iota about where you are at! Be forever a illusory dreamer, imbibe in the endless nonsense of fantasma, be intoxicated with delusions, never believe in reality, it does not exist, only the unreal, the abstract is the real thing. Everything tangible is just all an illusion. Cut your own throat if it be, and just believe you did not do it, and you shall not suffer any the worse therefrom. This is the fitting philosophy of that preposterous pseudoscience called 'Christian science.'

"That chimera, to believe with all your soul-force that what in reality exists does not exist at all, and that which possibly cannot be, that is the real thing—and there you have it!"

When finally I got through with my attack on that mysticism, Mary felt real physically tired (and I didn't blame her) and she admitted she did not really materially care whether there be any such thing as "Christian science" at all, as she remarked it couldn't even cure a boil or remove a sliver from a finger nor stop the excruciating pain of burns, and it was entirely impracticable, if not even saying untrue to nature and its laws, as she had seen the little ones die from real diphtheria and old and young alike from real pneumonia and the babies tortured from real colic in spite of well-meant "Christian-science" application.

Yes, it seems to me that followers of such a cult must be unfortunately misguided people, with utmost lack of even the slightest scientific understanding of material nature's laws.

We all know that physicians recognize the effect of the mental state upon the development of sickness, and like true scientists they give it its order and relegate it to its proper place and treat it, as necessity demands, either with or without drugs. "Christian science" dupes its votaries with its exalted Ego. When it overlooks the etiology, the course of disease in general and cares not about removing it, it puts its greatest ignorance into high-light. It is undoubtedly a dark spot on the horizon of present educational progress, it is a sneak-thief that gets the advantage over the less acute of hearing and sight—it is a blunder of would-be reformers which it will take years of true scientific light to eluminate bright enough so they will see their own shameful folly reflected upon themselves. It is an insult to intelligence and fills a truly scientific mind with contempt against its most fantastic and silly procedure.

"SAM SQUASH."

Larsen, Wis.

HOW DO YOU TREAT GALLSTONE COLIC?

Every month *The New York Medical Journal* gives a prize of \$25 to the physician sending in the most satisfactory answer to

some practical question. This is an excellent feature and some of these answers are splendid and all are most helpful. We were pleased to see in the number for March 28 that the prize-winner in answering the question, "How to Treat Gallstone Colic?" was Dr. Frank B. Kirby of Philadelphia, well known to readers of this journal. We quote it entire, as follows:

"A case of gallstone colic demands immediate anodyne treatment. I give at once chloroform inhalations or a hypodermic injection of morphine sulphate, 1-4 grain, and atropine sulphate, 1-100 grain, repeated in half an hour if necessary; externally the hot turpentine stupe or mustard plaster over the gall-bladder. However, if the case is mild in character, with slight pain, it will be relieved by

Strychnine sulphate....1-60 grain

Hyoscyamine sulphate.1-250 grain

Nitroglycerin1 200 grain

with hot water, repeated every ten minutes to effect, usually three or four doses being required.

"After pain the next most urgent symptom may be vomiting, although this may be slight or absent. If slight, it tends to overcome the spasm of the muscular structure of the duct, and if severe, the drugs already used will tend to correct this trouble.

"A third concomitant symptom is jaundice; this also may be absent. Jaundice is corrected by the use of the hot-pack and fractional doses of calomel, say 1-6 grain for eight to ten doses to aid the emunctories, skin, kidneys and intestines, without the usual subsequent saline, as the liver needs what bile is in the intestines to be absorbed for future use. The saline would cause a diarrhea, and deprive the body of the valuable bile salts.

"We determine the gravity of the situation after relief of its most urgent symptoms. Should we get a hectic temperature with leukocytosis and physical signs of distended gall-bladder, all pointing to pus formation, we urge early cholecystotomy and removal of the stone. Should we decide on its benign character we give palliative treatment. This in effect is prophylactic as well.

"Realizing its pathology we recognize no danger from the concretion *per se*, any more than a bullet encapsulated in the tissues. But as a possible cause of future trouble we determine on (1) the solution of the stone, and equally as important, (2) comparative intestinal asepsis. These we accomplish by the use of sodium glycocholate mass in three-grain doses four times daily, with five-grain doses of sodium succinate during several months. The former is one of the few true cholagog drugs, the latter has distinct value as an antiseptic and solvent for the concretion. Sodium succinate may be replaced by salol or sodium salicylate in the same dose.

"The foregoing deals directly with the stone already formed. But true prophylactic treatment will not only prevent the hepatic colic of existing stones, but prevent the formation of other stones. Gallstones are, chemically, cholesterin and calcium bilirubinate, which are only precipitated from bile, to form stones, by being in excess over their natural solvents, the glycocholate and taurocholate of sodium. This change is probably due to hepatic torpor and intestinal toxemia, due in their turn to constipation and the sedentary habit.

"I have never seen good results from the use of olive oil, and, in fact, restrict fats in the diet, also meat, substituting fruits and vegetables. It is also best to omit tea and coffee, and advise the free use of water. Walking in the open air is of value.

"Exercise, correct diet, intestinal antiseptics with cholagog drugs form the keynote in the prophylaxis of gallstone colic."

IS ATOXYL THE CURE FOR LEPROSY?

The patient was a man aged 31, who for two years had shown all the manifestations of leprosy. The form of the disease is trophoneurotic, with pemphigus. The diagnosis was made clinically, a bacteriological examination not being made. Syphilis was excluded.

The treatment was as follows: First to fourth day the daily injection, hypodermically, of 10 centigrams of atoxyl; the fifth

to eighth day, no injection; the ninth to twelfth, 20 centigrams of atoxyl daily; the thirteenth to sixteenth, repose—no injection; seventeenth to twentieth, 30 centigrams of atoxyl daily; twenty-first to twenty-fourth, 40 centigrams of atoxyl daily.

By this time the patient showed some symptoms of intoxication and some diarrhea, while the cutaneous manifestations were



DR. ENRIQUE COLONNA

worse. I gave him 800 Cc. daily of caffeinated serum by hypodermoclysis, to restore the loss of fluids provoked by the diarrhea. From the twenty-fourth to the twenty-seventh day he was permitted to rest, while the serum was still injected. All symptoms of intoxication disappeared, including the diarrhea and the ocular symptoms.

From the twenty-eighth to the thirty-first days 30 centigrams of atoxyl were given daily. Thirty-second to thirty-fifth day repose, cutaneous manifestations much better. From the thirty-sixth to the thirty-ninth 0.20 atoxyl were injected daily, cutaneous manifestations tending to disappear; nodulation greatly diminished. Fortieth to forty-third, repose; the patient is very much better. Forty-fourth to forty-seventh, 0.10 atoxyl daily; much more improvement. Forty-eighth to fifty-first, repose; the anesthesia characteristic of the disease has com-

pletely disappeared. Fifty-second to sixtieth 0.10 atoxyl daily. Patient perfectly well.

I repeat that bacteriological examination was not made. Have I made an error in diagnosis? Syphilis was apparently excluded, but is it possible that this was a case of concealed syphilis? Try this, Brothers. Use only the French atoxyl. It is more expensive but less toxic than the German. I simply report an observation and have told you all I have to tell. Is atoxyl the remedy for leprosy?

ENRIQUE COLONNA.

San Andres, Tuxtla, Mexico.

FROM AN OLD WARRIOR

I am not writing you for publication, but simply desire to say that I admire your common sense and good judgment, so far as I have seen, in your treatment of various diseases as set forth in *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*, which is fully in accord with my own and my experience in a practice of over forty years. Notice first your treatment of croup. I can say without egotism that I have never failed to relieve a single case of croup. I always order immediately a cold-water-compress to the throat with a double thickness of flannel over it, then give a small dose of spongia every half hour until fully relieved.

Since I have used calx iodata in laryngitis I am satisfied it is of great value. I may say that I treat measles with cold instead of hot drinks, which many physicians consider the only correct method, but I have never lost a case of measles in all my practice. I want to say that of late I have had some severe cases of acute laryngitis and have been surprised with the action of the calx iodata, having cured the worst cases within twenty-four to thirty-six hours.

A word as to hyoscine-morphine-cactin compound. I believe it is the finest combination both as a soporific as well as an anesthetic ever offered to the medical profession. I do not see how anyone can have bad results from it unless he is very careless in its administration. I have given chloroform in thousands of cases without any bad

results, but I believe the hyoscine-morphine-cactin compound is decidedly safer and better in every way. I have used morphine for years as a soporific without any bad effects in any way, but always kept within safe limits. My way of using has been to put 1-8 or 1-4 grain into a half cup of water and give of this one teaspoonful until I receive the effect desired. In this way I have quieted pain, given a good rest to the patient, and no habit was formed. I use hyoscine-morphine-cactin in a similar way, dissolving one full-strength tablet in two or four drams of water and giving it as needed, thus avoiding any possible ill effect. I do not use the hypodermic often because many fear the needle.

I am more and more convinced that a large proportion of physicians give too much medicine and are not careful enough in their diagnosis, jumping at conclusions too quickly and prescribing with too little thought of the effects.

I am glad to know that the editor of *CLINICAL MEDICINE*, in his comments, can be depended upon to set right, when necessary, these writers on the treatment of the various diseases. You are doing a grand work in the department of medicine and in your departure on the lines of alkaloidal dosimetry. God bless you, Doctor, in your work.

I like your idea of a *CLINICAL MEDICINE* Postgraduate Correspondence School of Therapeutics, although I do not know that it will pay me at my age—seventy-five last June—to take it up. I am keeping up with the times as well as I can, using the best I can find.

I don't think you have a better treatment for pneumonia and dysentery than I have, for I have never failed to cure quickly and surely either of these in my long practice. Still, there is much that I can learn of value as to other diseases.

I am pleased with your journal and have already gathered quite a deal of honey from its perusal. If I never got anything out of my introduction to your alkaloidal methods than the information about hypodermic anesthetic and calx iodata I should feel well

repaid. I believe the best of anything is none too good for any physician who desires to help his patients in the quickest time possible, and any physician or surgeon that does not desire such help is dishonest in his profession and unworthy to hold the position. One other incident connected with your journal just now comes to my mind. A young lady recently came into my office with enlarged tonsils. One of our local physicians has been urging her to have them sliced down with the knife. I told her never to allow such a thing to be done. I think, if I remember rightly, you some time ago denounced such procedure, and when I read it I said "Amen," and thought, "Well, that is the kind of editor for me." So you see you and I do agree in some things, if not in all.

And now I feel that I have intruded upon your time more than I ought to. But I felt just like telling you just where I stand in these matters and still am your well-wisher and glad to make your acquaintance and glad to have you know that I appreciate your efforts.

CLINTON D. WOODRUFF.

Reed City, Mich.

A PLACENTAL ANOMALY OCCURRING WITH TWINS

On the morning of Oct. 20, 1906, I was called to see a Mrs. Wm. D., 16 years old, and in labor. She was small, weighing about 90 pounds, with a small pelvis. The pains came on regularly, but without advancing the child, which was a breach presentation. I found it necessary to use my forceps and delivered a seven-pound baby. On examination I found another child's head in vertex-presentation. I again had to use my forceps to deliver the child to save the woman. Now, here is what I wish to call attention to. On further developments I found two afterbirths, joined by a cord about one foot long, the same size and shape of the cords attached to either of the children, thus making three cords instead of two. I have been in the practice of medicine for nearly forty years and this is the first time I

have ever seen three cords when twins were born.

I have been using the alkaloids for the last year or so and am well pleased with them.

J. K. SIMMONS.

Nace, Va.

SUCCESS IN A DESPERATE CASE OF PNEUMONIA

On March 13 I got a call to see a boy. After examining him I found the whole right lung in a state of red hepatization; temperature 105.7° F., pulse 130 and strong and bounding, respiration 62, cheeks mahogany-color, lips cyanotic, pupils dilated to the size of a split pea, and patient delirious. He had been sick since Friday, March 9. The parents thought it was only a hard cold, and didn't think much of it until he began to spit blood and tried to run away, fight, swear, and the like, as if he were in delirium. Then they were frightened and called me. I told them that, to my understanding, the boy would be with them on this earth only for a couple of days, and outside of quieting him, didn't want to treat him, as I thought it was useless. But as I went to my satchel for Waugh's anodyne and calmative, I thought, "Here is a good chance for me to test the alkaloidal treatment of pneumonia." So I pulled out my little pocket granule case and took: Thirteen granules of aconitine, gr. 1-134, thirteen granules of digitalin, gr. 1-67, and five granules of strychnine arsenate, gr. 1-30. All of these I dissolved in twenty-four teaspoonfuls of boiled water. I then wrapped his chest in dry woolen blankets, and applied boiling-hot-water compresses every half hour, until quite a perspiration started, six changes being sufficient. I gave him the aconitine mixture, one teaspoonful every fifteen minutes, attending myself, as I was afraid to trust his parents; then I watched the physiological action of the drugs, myself. After one hour and a half, or six doses, his temperature fell to 103.7° F., pulse to 109, and respiration became stertorous and he began gasping for breath.

I then dissolved six strychnine nitrate hypodermic tablets of gr. 1-40 in twenty-four teaspoonfuls of water, and gave one teaspoonful of this every half hour, and the aconitine mixture every half hour also, with a granule of emetine, for two hours, when his respiration became more uniform and 45 a minute, temperature 102.5 ° F., and pulse 105. Becoming more satisfied, I wanted to leave, but the parents begged me to stay longer, so I stayed, giving as before. After staying with him for five hours and attending as I did, even his parents didn't object to my leaving.

Before leaving, I gave him one tablet of calomel, gr. 1, sodium bicarbonate, gr. 1, pulverized ipecac, gr. 1-10, and directed to give him one tablespoonful of epsom salt six hours afterward, and the sulphocarbates in solution, 2 1-2 grains to a dose, every two hours, aconitine compound every hour and a half, strychnine nitrate solution every three hours, and to change the blanket every six hours with hot compresses.

Next day, at the same hour, the temperature was 103° F., pulse 100, respiration 32, the patient expectorating thick, bloody mucus. The parents told me that he slept for a couple of hours in the morning, asking for something for breakfast; when it was given, he could not eat. All the time he was given egg-nog and white of egg dissolved in a pint of cold water. I ordered emetine every two hours, and aconitine every one-half hour during hyperpyrexia, and only every two hours when remittent, with strychnine nitrate solution every three hours; sulphocarbates every four hours, as the bowels were not offensive any more.

Next day at the same time I found him with a temperature of 100° F., pulse 85, respiration 32, appetite improving, expectorating freely, and a happy result in view if the left lobe would not get involved. The following day at the same time the temperature was 99.4° F., pulse 85, respiration 32 but deeper, and the boy on improvement—road right along. Seven days of my treatment saved his life. Say what one may, with a treatment different from that of the alkaloidal method he would have succumbed

to the disease in less than twenty-four hours when I first saw him.

I am very grateful for the chance I have had and more so for the enlightenment on the subject through the columns of THE AMERICAN JOURNAL OF CLINICAL MEDICINE or THE ALKALOIDAL CLINIC of old. Had I known two years ago what I know now, my daughter of the tender age of fourteen would not have had to die for want of the proper treatment. Even though six of us had been treating her in pneumonia for twelve days and with the greatest care one could have, she died because none of the medicines given suited her case. Alkaloids to everybody now and in the future will be my treatment as much and as fast as I may be able to master. I have two more cases of pneumonia, but not of such severe type.

L. A. BAZAN.

Ashley, Mo.

A FATAL CASE OF PNEUMONIA

I should like very much to have your criticism on the treatment of the following case.

On February 8 the father came to my office, asking treatment for his son, two years of age, who had a cold and cough and was feverish. I gave pink calomel, gr. 1-10, to be taken every half hour for ten doses, followed by 2 drams castor oil; also aconitine gr. 5-134, emetine gr. 1-12, in 2 1-2 ounces water, 2 drams to be given every half hour for six doses, and then every three hours. The next day the child was reported to my office practically well. On February 27 the father came again to my office, saying that the child was sick again, and asked for and received a repetition of the above, and after two days he again reported the child much improved.

In both cases I pointed out the danger of treating the case without seeing the patient, and spoke of the danger of its being pneumonia, but was assured that the child was not much sick and that if not quickly restored to health, I would be called at once.

On March 2, 10 a. m., I was called in a hurry and found the temperature 103° F.

in axilla; pulse 180; respiration 36; suppressed cry; cough tight and painful; very marked frown; child pale; eyes dull and sore, but pupils normal in size; gums sore; flatus from bowel offensive; dulness over lung, quite marked between scapulæ. I gave calomel, gr. 1-6 every twenty minutes for six doses, followed in an hour by castor oil; also aconitine gr. 3-134. Defervescent compound, No. 3, emetine gr. 6-67, atropine sulphate gr. 1-250 in 3 ounces water, 1 dram to be given every half hour till fever went down to 100° F., then every two hours to normal. Temperature at 8 p. m. 103.2° F., and at 11 p. m. 102° F.; pulse 140; respiration 50 but less painful; cough quite loose; pupils dilated. I painted the chest with tincture of iodine, U. S. P., and applied antiphlogistine over the chest. I gave nuclein, two-drop tablets, twice daily. Intestinal antiseptic, gr. 1 every hour. Continued the fever mixture after adding digitalin and brucine.

March 3, 1 p. m., I found the child cyanosed, respiration impeded by phlegm, but little cough. Stopped the emetine, and gave sanguinarine, gr. 1-250 every hour till cough would increase. Repeated the calomel, but followed it with saline laxative instead of the castor oil. Inserted quinine, gr. 3 in capsule, into bowel every eight hours. Continued the nuclein and sulphocarbolates. Repeated the antiphlogistine.

I was called March 4, at 10 a. m., in a great hurry. Found child suffering from the most intense toxemia, also cyanosed. The sanguinarine, though stimulating cough at first, was having no effect now. Bowels had moved about three times each day and were quite free. Feeding had been judicious, food consisting of milk and white of egg well diluted. The temperature of the room was kept at 70° F. and room was well ventilated, but no draft reached the child. The air of the room was kept moist with steam. The child received the best of care and nursing, a clinical thermometer being used every two to four hours.

When the child became cyanosed, aconitine and veratrine were stopped and strychnine given instead of brucine. The tem-

perature ranged during the two-days' illness between 101° and 103° F. During the last day I remained with the child until its death at 8 p. m. On first arriving in the morning, I put the child in a warm bath and dashed cold water on the chest, continuing to do so for about seven or eight minutes, and then wrapped the child in a warm blanket.

If I erred, where was my mistake? This was my first death from pneumonia in four years since using the active principles, one of the cases being a man of 88 years. I still feel that I should not have lost this one, and should like to know better for the next time.

I may add that I visited the patient, in all, five times and remained with the child during the first half of each night, directing the treatment very minutely. During the last five hours I did not outline treatment fully, but everything I did failed to remove the toxemia, which was increasing in spite of all my efforts. Glonoin was used and saline laxative in abundance, also colonic flushing. Should I have bled the little one and injected saline solution? I thought of it, but he was a delicate little creature and I had always reserved bleeding for the robust. The medicines by mouth were all given in solution, excepting the calomel and nuclein, which were given as candies.

V. S. ERNST.

Bridgewater, N. S.

[Frankly, I do not feel that I can criticise this case with justice to yourself. The improvement which followed your first treatment showed that it was correct. The relapses indicated continued reinfection, and I think that the house probably, and the child's mouth certainly, were the seat of virulent cultivation of the pneumococcus. Possibly if the house had been completely renovated and fumigated and the child's mouth perfectly disinfected, things might have been different. Your treatment was correct. The child died from continued reinfection.

There never will be a time when human beings will cease to die from diseases usually curable. Therefore we must expect an occasional death. There is a wide difference

in the power of human being to sustain the attacks of disease, and many will die from infection which others could have safely withstood, and I have long since learned to associate malignancy of infectious attacks with bad hygiene of the house and vicinity. In one case a malignant visitation of diphtheria ceased when we discovered and removed a dead rat from the hot-air flue. Palier claims that the pneumococcus acquires malignancy by passing through the mouth and the evidence he adduces justifies the suggestion—Ed.]

DRUG AFFINITIES

The following excellent suggestions are taken from a little article in *The Therapeutic Record* by Dr. M. G. Price:

Mouth, mucous membrane and salivary glands: Pilocarpine, phytolaccin, mercury, iridin.

Schneiderian membrane: Atropine, potas. iodide or bichromate.

Pharynx: Phytolaccin.

Larynx: Aconitine, collinsonin, potassium bichromate.

Oesophagus: Veratrine.

Trachea: Sanguinarine nit.

Bronchi (smaller): Tartar emetic, ipecac, lobelin.

Pulmonary mucous membrane: Calcarea carb.

Stomach: Arsenic, boldine, strychnine, potas. bichromate.

Small intestines: Colocynthis, ipecac, baptisin.

Pancreas: Iridin, iodine, mercury.

Colon: Potas. bichromate, mercury bichloride.

Rectum: Aesculin, collinsonin.

SPECIAL CENTERS

Mastication: No drug known.

Deglutition: Anemonin.

Salivary: Iridin, pilocarpine, mercury.

Vomiting: Ipecac, lobelin, apomorphine, tartar emetic.

Sneezing: Alum, aralia, tobacco.

Dilatation of pupils: Atropine, salicylic acid, santalin, adrenalin.

Respiratory: Aspidospermine, cactin, hydrocyanic acid dil., tartar emetic.

Vasomotor: Aconitine, veratrine, glonoin.

Perspiratory: Pilocarpine, picrotoxin, atropine.

Defecation: Collinsonin, podophyllin.

Micturition: Cantharis, gelsemium, nux, santalin.

Emissions: Phosphorus, avena sat., gelsemium.

Erections: Cantharidin, damiana, phosphorus.

Parturition: Caulophyllin, macrotin, ustilago, secale.

Hepatic: Nitrohydrochloric acid, mercury, podophyllin.

Serous membrane: Bryonin, apocynin, sourwood.

Mammary glands: Phytolaccin, pilocarpine, saw palmetto, bryonin.

Castor oil should never be given to lying-in women on account of its power to produce mastitis by engorgement of the lacteal ducts.

CHELIDONINE IN CANCER

I want to contribute my little unit to the knowledge of the use of drugs in cancer. I have not cured any of my patients, but my small experience is encouraging, so much so in fact that I believe eventually a cure will be found.

My first experience was an almost moribund case of cancer of the pylorus, a large tumor being palpable beneath the abdominal walls. Having read of a suggestion (in alkaloidal literature) of injecting condurangin directly into carcinomas, I suggested to the consultant that we try it in this case, with strict antiseptic precautions. He would not consent to this and his influence was all-powerful. He made the same excuse as other physicians make, that they are afraid that it would release too much poison into the system and thus overwhelm it with a cancerous toxemia.

I did however persuade him to let me try condurangin and chelidonine by way of the stomach. The experience here was not a fair trial, but it seems the chelidonine did ease the pain and brighten the patient for the short period he continued to live.

Case 2. A cauliflower uterine cancer in which chelidonine had no perceptible effect.

Case 3. Cancer of esophagus near the stomach. When this patient first came under my treatment he could not swallow, regurgitated his food, suffered great pain, was terribly constipated, although he had had no medicine for a few weeks prior. Was passing ribbon-shaped, tenacious, putty-like stools which were difficult to remove even with enema or finger.

I started him on chelidonine granules, one four times daily, to begin with, gradually increased to sixteen daily (four times four). Used it cautiously, but no bad symptoms were noticed. I had tried to pass an esophageal bougie at various times, but was at first unsuccessful as I was afraid to use

force, but had to try something, as he was getting no food into the stomach. Chelidonine was dissolved on the tongue to get its local effect, if any.

The patient soon brightened up, pain was relieved in a few days, and he talked about going to work. It also seemed that the chelidonine had a softening effect upon the stricture, for I was gradually able to get a sound into the stomach. The size of the sounds was cautiously increased until I had a pretty good opening. The patient remained in fair health for a few months after this treatment although he had been under my care only a month; however he neglected himself thereafter, drinking heavily, and when I saw him again he was back to his old condition. He died before I got another supply of chelidonine.

Case 4. Cancer of the stomach, as indicated by a test of stomach-contents. The patient never vomited, did not even vomit blood toward the end of life, as some do. The tumor, which showed later on, may have been about the colon, pancreas or spleen. I don't know which, but was inclined to think it pressed on the transverse colon very early in the disease, because in this case the stools passed also were ribbon-shaped. Pain was intermittent but intense and resembled attacks of true colic.

This patient had all kinds of treatment before he came to me. A specialist advised methylene-blue, which treatment was faithfully carried out, but with no encouraging results. As soon as I got another supply of chelidonine I gave him some of the granules and advised eight per day (four times two) to begin with. By some mistake he took sixteen a day (eight times two), which was followed by such immediate and marked improvement that the patient went back to work after being at home four months, and his family expressed the hope that perhaps it was not cancer. Then it was found that fourteen granules (seven times two) per day acted best. Pain ceased almost entirely, although there always remained a tenderness over the tumor. The size of the latter certainly did decrease, the patient gained in weight and color, and constipation and rib-

bon stools gave way to regular dark-brown feces. Improvement continued until my two-months' stock of chelidonine granules ran out. He was then put on condurangin, both by mouth and hypodermically. He gradually grew worse and eventually died. Toward the end I resorted to morphine, but it did not act nearly as well as chelidonine in subduing the pain.

Perhaps there is nothing unique in this account of my cases, but I am sure this information will assist others in getting at the true therapeutics of the active principles.

Case 5. In this case the hypodermic injections of condurangin, 1-67 grain each, three in number, at intervals of three days, were given after my supply of chelidonine had become exhausted and the tumor had grown very large. These injections were made with a strong needle through the abdominal walls and into the firm structure of the growth. No improvement or bad results followed, showing that this treatment is not necessarily fatal as my colleagues prophesied, for I ceased the injections fully one month before death ensued.

Cases No. 3 and 4 passed ribbon-shaped stools, showing a stricture, although in each the stricture was high up. In both instances these stools were of a clay color, which improved under the chelidonine.

Case 6. Patient sick six years. The intense pain was the only thing that pointed to cancer. According to every authoritative description he had no cancer, nor did it seem probable to me. However he did have coffee-ground vomit (for the first time) one week before he died. During the seven years of his illness nothing gave this patient as much relief as chelidonine. I had this patient about one year, and as he was accustomed to changing physicians every few months, I feel that the chelidonine did act beneficially at least in this case.

What may we learn from these experiences? I think that chelidonine has a dissolving action on the fibrous structure of the growth. This is possible, and hence we must be prepared for toxemia, which you combat by nuclein. Chelidonine acts like thiosinamin, and I see that you have that

in your formula. Perhaps cancer will have to be fought on this plan.

Let me add that every case that I have here mentioned was positively diagnosed as cancer, which might be guessed by the invariably fatal issue.

Whatever caused the clay-colored stools in the foregoing cases I do not know, but as chelidone changed this, perhaps it also acts on the liver as Ellingwood suggests.

The patient, case No. 4, who had a stenosis of the eustachian tube, complained of buzzing and noises in a slightly deaf ear while taking chelidone. Perhaps this was due to a softening action.

JOHN KETTERLE.

Brooklyn, N. Y.

DEATHS FROM THE H-M-C? A REPORT AS PUBLISHED AND THE FACTS

In its report of the last meeting of the Idaho State Medical Society, *The Medical Sentinel* published the following:

"Personal Experience with Hyoscine-Morphine-Cactin Anesthesia:—Dr. J. M. Taylor, Boise, in reading this paper, claimed only a very limited experience. Abbott's H-M-C tablets were used in all his cases. In three of four surgical cases he found its use to greatly lessen amount of chloroform required, the pre-operative distress and excitement were prevented, post-operative excitement and restlessness were practically eliminated and there was very little nausea and no tendency to post-operative hemorrhage. In his obstetrical practice had used half-tablet doses, at intervals of three or four hours, as he thought it indicated, and all patients had become quiet, resting or sleeping between pains, slight lengthening of intervals, seeming improvement of contractions, and no noticeable increase of asphyxia of child: and thinks the benefit to the mother far outweighs the slight possible danger to the child.

"Discussion: Dr. John Boeck had had only limited experience—not sufficient to form a definite opinion. So far he was very well pleased with its use, though he had used the hyoscine and morphine without the cactin.

"Dr. Kellogg knew a case where operation was contemplated for obstruction of the larynx, where ether and chloroform were thought to be contraindicated. A single tablet of H-M-C was given hypodermically, followed by almost immediate death, and in his opinion the tablet caused the fatal result.

"Dr. Stewart had used this tablet in several cases and had felt more or less indifferent toward the combination until he used it in a case of bronchial asthma, when one dose relieved the attack and also prevented the nausea, which usually follows morphine alone.

"Dr. J. H. Bean reported three cases, one amputation and two abortion, with perfect results from the use of H-M-C.

"Dr. Niles thought the efficacy of this compound very doubtful, and from the conflicting reports, asked how are we to know where we are at?

"Dr. Brandt called attention to a death reported recently in *The Journal of the American Medical Association*.

"Dr. Hinman reported knowledge of three deaths from this anesthetic, occurring in Davenport, Iowa.

"Dr. McDaniel said he had tried it in one case, with unsatisfactory results, though patient did not die.

"Dr. Prinzing had used it in a case of inoperable cancer, with relief of pain, but it made patient crazy afterwards.

"Dr. F. W. Compton had used H-M-C in eight obstetrical cases, with three babies showing asphyxia.

Dr. G. E. Shawhan said he thought the ill-effects from H-M-C were due to an idiosyncrasy on part of patient for one of the drugs.

"Dr. Root also spoke of idiosyncrasy to effects of hyoscine which seemed to be increased by addition of morphine, and cited cases in his own practice. He did not approve of giving morphine in confinement and felt sure the child could be killed in this way.

"Dr. Haley's limited experience with H-M-C had taught him that the drug should be used with great caution.

"Dr. McCalla, after reading many favorable reports, especially from Europe, had tried H-M-C in one case of abdominal surgery with very disagreeable symptoms during the anesthesia, followed by vomiting and other post-operative disturbances. The one experience had frightened him away from further use of the drug.

"Dr. Taylor thought the idiosyncrasy was usually due to the hyoscine. In regard to the asphyxia of child, he had found asphyxia in fully fifty percent of cases where H-M-C was not used.

On receipt of this report we at once set about an investigation. The Dr. Kellogg mentioned proved to be W. R. M. Kellogg, of Seattle, Wash., from whom we have received a letter from which we make the following quotation:

"The case which I reported at the meeting of the Idaho State Medical Association was of a woman who was a patient of Dr. Ivar Janson, Eitel Bldg., Seattle, Wash. Dr. Janson referred this woman to a specialist, Dr. Hemmeon, 704 Alaska Bldg. of this city, on account of a growth in the larynx. Because of an obstruction they proposed to do tracheotomy and gave her one of your tablets as an anesthetic. She died immediately, and both physicians believe that the tablet was the cause of her death."

(Signed) W. R. M. KELLOGG.

However, Dr. Janson contributes the following:

"The patient, Miss Martison, was suffering from a carcinoma of the larynx and I decided to perform tracheotomy to relieve the dyspnea. I ordered the nurse to give one of the tablets of H-M-C compound two hours before I came up and one repeated half an hour before. The respiration had been carried on with great effort before this, and consequently when narcosis was induced and no one to watch the patient the voluntary effort at breathing ceased and the result was suffocation. When I arrived the patient was dying. I hastened to the operating room and opened up the trachea, introducing a tube and using artificial respiration, but in vain, as the patient had expired on the way to the operating

room. This can in no way be attributed to the use of the tablets. It was purely a matter of narcosis induced and suffocation resulting, as much so as any form of mechanical strangulation would have been."

(Signed) IVAR JANSON.

Up to the time of writing we had not been able to secure a report from Dr. Heinman, but Dr. Kellogg is evidently mistaken in so far as the assertion that *both* the physicians attributed the death to the anesthetic.

Dr. Compton, in a letter to us, supplies a bit of evidence which singularly enough was omitted from the report of the meeting; and that is, that none of the children who showed asphyxia died.

Dr. Hinman was located as F. Hinman, M. D., of Spokane, Wash. From a letter from him to *The Medical Sentinel* we quote the following:

"At this meeting I reported knowledge of three infant deaths in other men's practices at Davenport, Wash., following the administration of the H-M-C tablets to the mother during confinement. The three deaths I stated occurred shortly after birth, two days in the longest case, from asphyxiation, and the tablet was held responsible for the fatal outcome in each case. Dr. Abbott has been misled by the printer's error in reporting the deaths from Davenport, Iowa. No doubt Dr. Abbott can learn of still other fatalities that have occurred following the use of this anesthetic, should he care to send to Davenport, Wash., 'again to investigate.' However, I have written knowledge about which there can be no mistake for the statement in regard to the three cases in dispute."

(Signed) F. HINMAN.

Two other journals besides *The Sentinel* published this report in identically the same language, and all gave the address mentioned by Hinman as Davenport, Iowa. It was not a printer's error, nor could we be expected to know that some other Davenport was intended, especially since it was not located in the state whose Society was meeting. We have, however, located two of these alleged cases, in the practice of Dr. H. J. Whitney, of Davenport, Wash.

We quote from a personal letter from Dr. Whitney:

"I have had two deaths in infants which I attributed to the H-M-C tablet. One was a case like this: First confinement, woman 22 years old. I gave her one No. 1 some six hours before confinement; she labored well and hard, pains steady—I thought everything went beautifully; child born naturally, but asphyxiated. I brought it around, but it only lived about twenty minutes; went into a spasm and died. When I went to see the mother she was nearly pulseless, and I worked with her for four hours before I brought her out of it. Now this was six hours after the No. 1 was given. My other case was similar, only I used No. 2 and gave two hypodermic injections, three hours apart. Normal labor; child asphyxiated and died in about one hour. Dr. Moore lost one the same way, so he reported to me. Quite a number of doctors here have had the same results, and we are afraid to use them very often; still I am using them, but in much smaller doses. A No. 2 I use in two doses. I really like them, but think they should be given in small doses in obstetrics, much more so than they have been."

(Signed) H. J. WHITNEY.

Thanking Dr. Hinman for the suggestion to investigate in Davenport, Wash., we have done so. We have written to Dr. Moore, asking for particulars as to his case, also to every other physician in Davenport, Wash., in order that we may not lose the opportunity of recording any deaths that may possibly or probably be assigned to the H-M-C. Dr. Moore's should be the case which Dr. Hinman mentions as having died two days after the birth. The details of such a case would be exceedingly interesting. Hyoscine is so rapidly eliminated that not a trace of it can be detected after the third urination of the infant following the administration of the tablets to the mother during labor; hence if this death were due to this combination, it must be attributed to the morphine.

But Dr. G. W. H. Moore, of Davenport, Wash., contributes the following data:

"So far as I know there never has been a death in this locality that could in any way be attributed to the H-M-C. I have used it in sixty-two obstetric cases and twenty operations, with only the very best results; and expect to continue its use." Further he says: "I think it can be shown that the cases in which Dr. Whitney blames it were both premature births. The third case mentioned did not occur in my practice."

(Signed) G. W. H. MOORE.

Dr. R. P. Moore, also of Davenport, Wash., writes as follows:

"I know of no deaths that have occurred from the use of the H-M-C tablets by asphyxia, but doctors tell me that they have had trouble in getting some of their babies to breathe. As for my own experience, I have only used it in two cases. In the first I only used one-half tablet and the child breathed in a short time; in fact I have had a number of cases where no tablet was used, when it was as long before the child breathed as in that case, so I paid very little attention to it. In my second case I gave one tablet and when the child was born it was apparently dead, but after working heroically and using every means known to me for, it seemed, at least half an hour, I finally resuscitated it. I then and there laid my tablets to one side, and swore that I never would use them again in my confinement cases. I believe they are all right in minor surgical cases."

(Signed) R. P. MOORE, M. D.

It is well known that asphyxia is not an infrequent occurrence after confinement, even when no anesthetic whatever has been used, and that in a certain proportion of cases it is fatal. Consequently we can only attribute asphyxia to the anesthetic where the symptoms unmistakably point to the latter as the cause, or when such fatalities occur in larger proportion than when no anesthetic is used, or when some other one, such as chloroform, has been used. It is therefore not by the study of isolated cases, but by grouping them in masses, that we can get as the exact truth in this matter. We therefore refer our readers again to the report of Gauss, published in CLINICAL

MEDICINE last May. In one thousand labors conducted under this anesthetic method, twenty-nine infants died. Not one of these deaths could Gauss attribute to the anesthetic. In one thousand cases previously attended without this anesthetic, forty-nine of the infants died. It will be seen, therefore, rather than the mortality of infants being increased by the use of this anesthetic method, a decrease occurred so marked that no one can reasonably object to its being credited to the anesthetic.

These cases must therefore be recorded as deaths from asphyxia *after* the use of the H-M-C anesthetic, but so far no evidence has been given to show that this was the sole or even a contributing cause of the children's death. We again appeal to Dr. Hinman to aid us in locating that remarkable third fatal case, and the others at which he hints. It looks as if he had allowed himself to quote rumors as undisputed facts, in a manner calculated to throw discredit upon a therapeutic method and its advocates.

More than three millions of the H-M-C tablets have now been placed in the hands of the medical profession in America, and as yet we await for the first evidence of a single death unquestionably to be attributed to this anesthetic. We have never made any claim that no deaths could possibly result after its use, nor that so powerful an agent, used by all sorts of physicians, with all degrees of recklessness, could not under any conditions possibly determine the death of the patient. We are waiting, and willing, to record such a death when it is reported. But according to H. C. Wood, Jr., there should have been several hundred deaths at least, following on his average of one for every 221. There is evidently something wrong somewhere. In the meanwhile we may with edification turn to Prof. Littig's investigation of anesthesia fatalities in the State of Iowa. If seventy-seven persons died from the effects of chloroform and ether in that State, how many died all over the United States?

We do not minimize the importance of care in giving the anesthetic combination during labor. In beginning the use of this

combination the doctor should depend, at first, upon the half-strength tablets. Bear the following suggestions in mind:

1. Try caulophyllin for the "false" or "nagging" pains; if this fails, try one half-strength H-M-C tablet.
2. For *true* labor-pains withhold the H-M-C till the os is dilated, then give the half-dose tablet, repeating the dose only when the head rests on the perineal floor.
3. Do not give more than two half-strength tablets within six hours, except to secure much-needed relief during the expulsion of the head; in such a case inject a tablet and try to effect delivery within five minutes.
4. In ordinary, typical cases, a half-strength tablet given when os is fully dilated and another half-strength tablet as the head reaches the perineum is all that is needed; if progress is rapid, the single tablet, first given, will be enough.
5. Attend to the child personally and see that it is breathing normally before leaving it.

W. C. ABBOTT.

Chicago, Ill.

PERTINENT FACTS ABOUT APPENDICITIS—ONCE AGAIN

In reading CLINICAL MEDICINE for January I was impressed with the fact that although much had been claimed in advance for this particular number, it more than made good. "Pertinent Facts About Appendicitis," by Dr. A. L. Blesh, of Guthrie, Okla., claimed my attention above all others for three reasons: First, he is an Oklahoma product. So am I. Second, he advocates surgery in all suspected cases of appendicitis. I am almost ribbed up to the point of denouncing surgery in any case. Third, he classes the medical treatment of appendicitis the same as no treatment at all.

I claim, and can deliver the goods, that surgical treatment of appendicitis, in the great majority of cases, is worse than no treatment at all, and so far from being justifiable, is actually criminal.

I offer no apology for taking up this subject. It is the one thing above all others (the removal of ovaries possibly excepted)

that demands the earnest attention of the true doctors throughout the country. I do not claim that all are dishonest in their opinions, but it is a lamentable fact that all with whom I have come in contact are hard to convince.

If the profession will not be educated, then the true physicians must educate the public.

All textbooks and all schools that I know teach that operation is the only thing. Then is it strange that practically all physicians, and particularly those only a few years out of school, look no further for the relief of all appendicitis patients?

Dr. Blesh asks, "Do we know all about it?" This is a very pertinent question under the circumstances. I conduct a small private hospital, and the nonoperative treatment of appendicitis constitutes a large part of my work. I do not claim to know all about appendicitis, but as I have had more experience than probably a dozen busy general practitioners, and as it is this class whom *CLINICAL MEDICINE* serves, I do claim to know something about it.

I go further, and without fear of being accused of egotism, I claim to know more about it than any surgeon who cuts out every appendix that is unfortunate enough to be brought into his court, without being proved guilty. Why inflict capital punishment, the limit, without conviction, without trial? Would any free-born American knowingly submit to this with his life and liberty? We think not, but this is exactly what they are doing with an important part of the body.

The appendix has a purpose. If not, it would not be in everyone. But why discuss this point? I also claim that practically all cases can be cured, all in my experience up to the time of this writing, and he who destroys all of them does not know whether they can be cured or not, hence my claim to know more about the subject than the surgeon. Is this illogical? If so, will some brother please point out the error and set me right?

Dr. Blesh bemoans the high rate of mortality. I agree with him that 2 percent should be enough. According to my own

experience it should be much less. It has been, and is, less, but—not by the knife-route.

My observation on cases treated surgically indicates that the mortality is not far from 10 percent in cases that were not very sick—such a case as he presents in his own daughter; but where the patient reaches the hospital very sick the death-rate is well up toward 100 percent; so near the maximum percentage that operation in such cases is little less than manslaughter in some degree.

Our friend, in stating a proposition, uses these words: "The death-rate of appendicitis, untreated or treated medicinally alone, which amounts to the same thing, is 20 percent." May I ask where he got his information?

I repeat that since the beginning of my attempts to cure appendicitis, medicinally, I have never had a death. This, to the average physician, sounds like a lie out of the whole cloth. I do not like to make the statement, but unfortunately for my reputation as a truthful man, I can not say otherwise without lying. In general practice, in consultation, I always opposed operation for appendicitis and, together with the family physician, we always made good. In my own practice I always made good, but in the latter cases I never allowed it to reach the stage that I would call it by such a fashionable name. I have cases in this community dating as far back as 1898, which will offset the often-repeated chirp that cases treated medicinally will recur. A corn will return after removal from the same cause that first produced it.

As our friend, Dr. Blesh, is at the head of a denominational hospital, and the writer is owner of a private hospital several times smaller, but a hospital on both sides of this controversy, nevertheless—let's have something disinterested. About two years ago the following appeared in *CLINICAL MEDICINE*:

"Appendicitis in the French army: The nonmedical-treatment-of-appendicitis dogma has received a severe jolt from the recent report of the French army hospitals. Of over 600 cases nearly 400 were treated medic-

inally, with a mortality of less than one percent; of the remainder, treated surgically, the death-rate was over eleven percent."

Did Dr. Blesh fail to see this? He has been a contributor, and presumably a reader, of this journal for several years. Then why did he not take issue with this article, and at this time?

Our friend advises each doctor so to educate his clientele that a pain in the abdomen, "it may be anywhere or everywhere," should lead to the consulting of a physician. Reading between the lines, the natural inference is that Dr. Blesh was so educating his clientele that the next step would be to cart the pain off to a surgeon for operation, and after the case he mentions in his own daughter, it is easy to imagine what would happen to that appendix after reaching him. I have three daughters, and I relieve such symptoms, as he describes, in them with "salts" or castor oil. One can not doubt his honesty, after having his daughter operated upon for such trifling symptoms as he describes, but his judgment is open to question. It is all in the training, if we do not try to get away from it.

We will not repeat the symptoms described in his daughter's case. For details see CLINICAL MEDICINE for last January. However, one prominent feature is that every symptom was "slight" and that a positive (?) diagnosis was made in a few hours, operated upon and speedy recovery, etc.

Compare, if you please, with the following. I have many others, but this is a good one and will do for the present.

A. E. B., of Waldron, Kansas, was brought to us in July, 1907. He awoke Sunday morning at 2 a. m. with a *severe* pain in the region of the appendix; nausea and vomiting. His physician was called and within twenty-four hours a diagnosis of appendicitis was made. He asked to have the writer in consultation, Waldron being only nine miles away. The attending physician refused, stating that I was a quack, and applying various choice epithets to me. A physician from another town, one of the busiest men in the place, was called. The previous diagnosis was confirmed, with the

additional information that the patient would die within twenty-four hours if operation were not performed. He, the consultant, gratuitously informed the family that "there is a feller across the way who claims to cure without operation. Anyone can cure 'belly-ache,' but where pus has formed, as it has in this case, no living man can do anything without operation." It was then only a short time until the train passed Waldron going to the slaughter house, and they had to think quick. One son in the family had died four years before, after being operated upon for appendicitis. He lived several months but was never well again, being constantly under treatment. This helped them make up their minds, and the result was he was brought here. This is what was passed up to me:

A young man, twenty-three years old, vomiting incessantly, had not slept since first attacked; anxious expression, abdomen tympanitic—no, bloated tight as a drum, better expresses the condition. Temperature 103.5° F., pulse 135 to 140, small and thready, intense pain and, I suppose, rigidity all over abdomen. Patient could not bear palpation, particularly so on right side. Could not be moved at all without great suffering. Was brought to me at 10 p. m., Tuesday evening, having used 1-2 grain of morphine hypodermically to make moving him possible. About fifteen minutes before reaching here he began suffering again, but we had him resting easy within an hour and asleep in two hours, by using heat, aconitine and hyoscyamine to effect. Within six days he walked a block to be shaved. At this writing he is sound and well, and has good prospects to continue so so far as appendicitis is concerned.

Now how about this case? Was I mistaken in the diagnosis? If so, I have two good men to back me up in it, but they are keeping very quiet about it now, and never mention it unless first spoken to about it. They both have the honor to be very much opposed to my work and methods. I admit that this is one, but not the only one, of my star cases, as I have had them come here in all conditions, ranging from the

above down to what might be called belly-ache. *But*—why are they here? Their physicians advised operation. Does it appear possible that all cases of appendicitis sent for operation are correctly diagnosed? I should think that some were mistaken, but I have yet to hear of a single case who reached the surgeon who did not confirm the judgment of the lower court and operate according to tradition.

I am not opposed to the city physician who is a man, but I am bitterly and unalterably opposed to the great (?) surgeon who sets himself upon a self-constituted throne, wraps himself in a cloak of ultra-ethics, disdains a man who advertises a little bit, and at the same time has practically 75 percent of the "little fellers" they despise driving patients to their killing rooms, as a bunch of cattle is driven to the Armour's. Is this too strong? I confess that it does not smell good to me, but it is facts that no one can deny. If I am lying about my success in this trouble, it will be easy to establish the fact. I am sure that CLINICAL MEDICINE will take pleasure in publishing an exposure of myself, if what I have said are not facts.

In one community sixteen miles south of me there have been five cases of appendicitis in the past two years. Three went away for operation and two of these three came back dead. Two came to me, against the advice and protests of attending physicians, and both are well. Yet these same physicians are still advising patients to keep away from me. Are all the people fools? It looks as though many of them are. In another town in Kansas I have had two patients; one of them dates as far back as 1898, and both are well pleased, and yet this town of about 2000 population furnishes an average of probably one case a month for operation.

I have been at my present location for about thirteen years. I am a lawabiding citizen and have a fair reputation for veracity. I feel and know that I have the respect of the laity. I also feel and know that I have lost the outward respect of the physicians about here, that is, most of them. For

fifteen years I was strictly ethical, but I could not stand for everything demanded by the modern code. I guess I bolted and am a "quack." Anyway, they have called me that, and other things.

In conclusion let me say that if refusing to operate, or if refusing to consent to an operation upon a patron and friend, and perhaps a neighbor upon unnecessary or inoperable cases, if putting these facts before the public in papers, and paying for it, when my professional brethren refused to help me do it ethically, if this be quackery, then, God being my helper, I will be a quack to my death, and when I am done, will have the satisfaction of knowing that I have at least saved some lives and prevented much unnecessary suffering.

B. W. SAFFORD,

Manchester, Okla.

[We disapprove of advertising practice and we think every doctor who embarks in it makes a serious mistake; but it is our way of doing things to give everyone who tries to be fair and square a hearing in these columns. Dr. Safford has some excellent ideas which are presented for what they are worth.—Ed.]

THE STEAM AUTOMOBILE

I have been a user of steam automobiles for six years and at first thought I would have nothing else. Steam has its disadvantages in getting under way, but, oh! Jupiter, it certainly is *the* power. Well, I have watched all sorts of gas machines for three years past and not a one that I tried suited me, but the gas machine is the doctor's machine on account of getting away quick. Now, that isn't all. You want to get there and back, and you want plenty of power for hills and mudholes. You want simplicity above all things, and get-at-ability in case of having to get at any part.

"Well, that is all right," you say, "but where do you get all these things?"

I answer: Buy a Maxwell tourabout, price \$825. It will meet all requirements, is strong and well made of best material, all

the working parts under the bonnet and easily accessible, plenty of power, and as they say in their advertisement, "perfectly simple and simply perfect," or as near as you can come to it in an auto for the doctor's use.

Now as to air and water cooling. Give me water, and if you use ordinary common sense you won't have any leaky radiators. My machine has run all winter, stood in front of my city office from 3 to 6:30 every afternoon when everything was frozen tight, even to the tubes leading from my acetylene generator to lamps, but my radiator never froze up. I used 30 percent of denatured alcohol in my first filling of the radiator, as it got cold, and about once a week I would have to put in a quart or so to make up for evaporation, using half alcohol and half water to keep my tank full, and there has been no trouble with freezing. A 40-percent alcohol and water mixture won't freeze at 10 degrees below zero, while the alcohol does not in any way injure the rubber hose, that carries the water to water-jackets and back. The Maxwell thermosyphon does away with circulating pump and troubles and annoyances caused by that. For little trouble, reliability, getting cut quick, ease in learning to handle, and get-there-and-back qualities I wouldn't trade my little Maxwell for any other doctor's car of any other make in town.

C. L. THUDICHUM.

Baltimore, Md.

SOME HELPFUL AUTOMOBILE "POINTS"

In your March issue you ask for a summary of points relative to an ideal automobile. This whole question resolves itself into this: where will the physician use his machine? Any old car will pull over good streets and city pavements, but the country road—there's the rub. Here is where we find the wagon and buggywheel rut, the frozen rough road, deep snow, or if in a mountainous, hilly or sandy country, the roads will be accordingly bad. The majority of our profession make country drives,

and the ideal automobile outlined below is for them.

1. The ideal automobile should have an owner who is mechanically inclined.

2. It should not be an electric or steam vehicle for business purposes.

3. It should be purchased from a firm or agency as near by as possible and courteous in the treatment of its patrons.

4. A reliable machine need not cost more than one thousand dollars.

5. Every machine will give trouble. Most trouble however comes from inexperience. Read up!

6. Plenty of power is the most important question for bad roads. The relation of horsepower to weight should be about 1 to 50 or 60.

7. Next in importance is tire trouble. *Very few* escape the puncture and blow-outs of pneumatics. *No one* escapes the expense of replacement, which is the greatest item on an automobile. The rubber trust has the market under control. Therefore use solid tires 1 1-2 to 2 inches in thickness.

8. Hand in hand with solid tires go high wheels. Those having a diameter of 40 inches, with a standard tread of 56 inches, give best clearance, take the ruts nicely and are easy on the machine as a whole. The longer the wheel-base, the better the riding.

9. The three prevalent forms of transmission give good service. The planetary makes noise, but is fool-proof. The double-friction drive is better than the single. The sliding-gear transmission is excellent.

10. More important is the final drive. For the highwheeler double-chain drive with the differential on the countershaft is the best.

11. The greater the number of cylinders up to six, the greater the efficiency, but necessarily six cylinders require six times more care than one. It is impossible however to get enough power and smooth running from a one-cylinder machine. Two cylinders are a happy medium.

12. An air-cooled motor is a success. Such a motor, however, will overheat in summer if run on the low gear too long over bad roads. So will a water-cooled machine,

and don't you forget it! Air-coolers have a shorter lease of life on account of constant high temperature of explosions but will average about three years' service. They save a great deal of weight, extra parts to get out of order, besides time and expense. They are best suited to the physician who has many winter months to contend with and few hot summer days. The water-cooler is best for the physician in the warmer southern states.

13. Last but not least, get a machine the springs, frame and axles of which can be repaired by any blacksmith.

For the benefit of would-be purchasers I give below the names and addresses of four firms making automobiles which meet the above requirements:

Air-cooled: Bendix Auto Company, Cragin Station, Chicago. International Harvester Company, Auto buggy, Chicago. Hatfield Buggaboot Company, Miamisburg, Ohio. Water-cooled: Reliable Dayton Company, Chicago.

E. OLANDER.

St. Paul, Minn.

[We think we now have given the motorist his "innings." Therefore the "experience meeting" will be called closed—for the present anyhow. I think many of our readers have enjoyed this discussion, but unfortunately many others, being denied the pleasure of owning and operating an "auto" find this talk of the craft "all Greek." We have a number of excellent papers on this topic still on hand which we should like to

publish, but space is lacking, and *nous retournons a nous moutons*—therapeutics.—Ed.]

CORRECTION

Dr. W. Taylor Edmunds of Ferguson, S. C., calls attention to a curious error



Dr. Herrick in his Automobile

which crept into his little article appearing on page 534 of the April number of CLINICAL MEDICINE. Instead of "Press the toothpick downward and upward" it should have read "With the toothpick press downward and outward." Also by mistake his name was signed A. Taylor Edmunds instead of W. Taylor Edmunds, the latter being correct.

AUTOS AND ALKALOIDS

I send you under separate cover a picture of myself and automobile. I have used an auto for three summers and find it a great help. I keep one good horse for winter work. The auto is more expensive to keep up than a horse, but my family get a great deal of pleasure out of the machine.

I have been gradually working into the alkaloids, and find them right. I have spent fifteen years of my life behind the prescription case of some of the best drugstores in Michigan, and when I started to practise I wrote a great many prescriptions, not knowing how to get at the bedside dispensing. I do not write one prescription where I did twenty-five a year ago. I am doing more and better business and getting more money, and shall continue dispensing as much as possible.

A. W. HERRICK.
Bay City, Mich.

[Dr. Herrick's experience is not an exceptional one. The "reformed" drugclerk turned doctor is one of the first men to see the advantages, both to himself and his patients, of carrying and dispensing his own remedies.—ED.]

A FRIEND OF THE AUTO

I notice in the March CLINIC that the automobile experience meeting is declared open. I mean to speak right out in this meeting for I have been a sinner in times past. I even invented new words with which to cuss the makers of these "trouble wagons." I was a bad one, but a great light has come to me, and now I sit in the "Amen Corner" and try to look with a benignant eye upon other sinners.

Two years ago I bought a second-hand machine on which to learn. Then the trouble began, for I was totally ignorant of gas-engine construction, but I had an abiding faith that I could learn, and I did learn. I then exchanged the old machine for a Holsman No. 11. That machine is my personal friend and any man that says anything against it, touches a tender spot. I fail to understand why Dr. Richardson calls it nondescript unless it is the fact that it will

go where the others cannot think of going. Dr. Lowe says that the machine does not negotiate sand, hills or mud to advantage, that the engine is liable to overheat and that the Holsman people are unsatisfactory to deal with. Now, I have had some experiences in this line and I wish to relate them.

My experience with the Holsman people has been just as pleasant as that with other



Dr. Bomberger and his Faithful Holsman

business firms. Last September I sent a patient to Madison Lake to recuperate. He desired me to visit with him for a few days. So, one bright Sunday morning I loaded up the family and started for a little outing. Madison Lake is thirty miles from Mapleton. It rained on Sunday night, was cloudy on Monday and it rained again on Monday night. I had made appointments with patients at my office for Tuesday afternoon. I started home on Tuesday morning. The sand, sticks and other debris washed to the foot of the hills by the night's storm were at some places twelve inches deep, while near Mapleton the mud was so sticky that the wheels filled up solid. Of course the trip was made on the low gear, but the machine went home in a little less than three hours and the engine stopped as soon as the

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F. J. BOMBERGER.

Mapleton, Minn.

A FIGHT FOR THE TRUTH

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wheels of their Juggernaut while they tie
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to fight against God." The man that said this was Gamaliel, the great teacher, at whose feet sat Saul of Tarsus, who became the greatest preacher of all the ages.

Is it too much to hope that some man, fair-minded and broad enough to be just, may yet arise in "the council" and admonish that body to be careful about what they intend to do? "Truth is mighty and will prevail." Many of us out in the field look to you to continue the fight for the advanced doctrine of dependable therapeutics. We recognize you as leaders in a great cause and we will stand by you through the fight. Do not be overawed by any man or set of men in your contention for the truth.

A. S. TODD.

Manning, S. C.

[Letters like these are an unspeakable source of strength and encouragement to us. We have received many of them during the last few months and an unusual number during the last few weeks. All that cunning and ingenuity could devise to harm us, to undermine our strength with the profession, has been tried, but our friends see and understand that the fight that is being made upon us is something more than an assault upon "Abbott"; it is an attack upon the independent doctor, the doctor who dispenses his own remedies, who insists upon thinking his own thoughts and practising his profession in the way that he thinks best for his patients, rather than as the "rulers of the ring" want him to.

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writes us, "I'm with you till H. F. O."—not very polite but expressive, and coming from a warm heart.

Many urge us to "come back"—to answer these assaults; some, most friendly and impatient of our silence, demand us to do so and criticize our delay. We shall answer, dear friends, we shall! Be patient, just wait a bit, and trust us to fire our broadside at the time and in a way that shall pierce the armor-belt of this pirate ship, sailing under false colors and preying upon independent medical thought and endeavor, till it looks like a kitchen colander, and as such, and lopsided, rusty and no longer a shield, it is relegated to the scrap-heap where it belongs. Not only is the truth being distorted to suit the purposes of our foes but lies are being calumniously circulated which are as black as the hearts that conceive them.

As we have said many a time before, we want but the truth. And the truth, as we see it, we shall fight for. Above every other desire in our hearts is the aspiration to be of service to you. After all, "the biggest clubs are found under the best apple trees." The very fact that we are helping the doctors of the country to greater success, and that they appreciate that fact, is making us more enemies than anything else. But—we believe that you will stand with us and help us—now.—Ed.]

GOOD THINGS FROM THE "PHLEBOTOMIST"

The Bloodless Phlebotomist is confessedly a "trade journal," put out by the people who make antiphlogistine; but it is bright, wise and helpful, and those are reasons enough for its existence, whether it sells "Denver mud" or not—though we certainly hope it does!

The February number is particularly good. Perhaps we are prejudiced more than usual in favor of this number because it contains an excellent article by our friend, Dr. J. M. French, on "How to Treat a Pneumonia Patient"—an abstract of the original article on that subject in *The Critic and Guide*, outlining the alkaloidal methods

so familiar to our readers. But the articles are all good. One point particularly interested us, raised by Dr. Lubbert in his paper on "Treatment by Hyperemia." Discussing the action of antiphlogistine he says:

How intense the effect of the dressing may become, I have had occasion to observe in a patient suffering from Bright's disease, whose legs and feet were highly edematous, in fact, had the appearance of a shapeless mass. I had the patient put to bed and applied antiphlogistine around the right lower extremity, the left being left free and placed in a raised position. After twenty-four hours the leg under treatment was quite normal, the knuckles were plainly demarcated, at the dorsal surface of the foot the tendons became visible and there was no trace of edema upon pressure. The left extremity, which had not been treated, did not present any change whatever, being swollen to precisely the same extent as it had been twenty-four hours before. In regard to the skin which had been enveloped in the antiphlogistine: anyone who did not know of the procedure applied might have thought that the leg had been freshly washed with soap and rubbed with oil, to judge by its whiteness and suppleness. With the aid of a magnifying glass it could be observed that the glandular lumina were widely gaping, a little droplet oozing here and there out of the sweat glands, while from the sebaceous glands a dilute secretion could be expressed.

We confess that we have at times been skeptical concerning this alleged exosmotic action from the application of the clay pastes; but it seems pretty well established, in this case at least.

DR. JUETTNER'S BOOK

While many of the students in our post-graduate course have purchased Dr. Juettner's book, "Modern Physio-Therapy," we wish that all of them might get it—not only they, but every reader of *CLINICAL MEDICINE*, the book is so filled with helpful therapeutic matter. While our special field is medicinal therapeutics, there are constantly opening up new "physiologic" or "physical" methods of treatment, some of them evanescent to be sure, but many of great value to the physician. You, Doctor, should be familiar with these things—should use them wherever they give reasonable promise of benefit—for our mission is to heal.

Dr. Juettner's book covers this ground. Space in it is devoted to personal hygiene,

dietetics, the effects of heat and cold, including thermotherapy and hydrotherapy, mechanotherapy, light-therapy, electrotherapy, the use of the x-ray, etc. It covers an immense field and does it in a remarkable manner.

The knowledge gleaned from this book, added to a careful study of alkaloidal medication, will fit a man to do almost any kind of therapeutic work with greater success, and to add to his influence and income thereby.

The Clinic Publishing Company will supply the book, if desired, or it may be purchased from the author direct. The price is \$5.00. It's a big book and a most valuable one.

IF WE BUT KNEW

There's many a tale of the tongue that's untold,
That trembles to turn tears away;
There's many a song of the sad soul unsung,
That sighs to see sorrow still stay;
There's many a hope of the heart that's unheard,
That harks to hear heavenly strains;
There's many a wish of the will unexpressed,
That wonders why worry remains.

There's many a mood of the mind, that is masked,
That might move the millions, in voice;
There's many an agency acting alone,
At which all the angels rejoice;
There's many a smile that seldom is seen,
But sometime and somewhere shall show;
There's many a love of the life, not unloosed,
That's learned long lessons below.

The tongue and the soul, and the heart and the will,
May be, each and all, out of tune;
The tale and the song and the hope and the wish,
Will likewise forgotten be, soon;
The act is soon ended, the mood is soon gone,
The smile fades quickly away;
But the lesson of life is lasting and long,
Only love is the one sure to stay.

HOMER CLARK BENNETT.

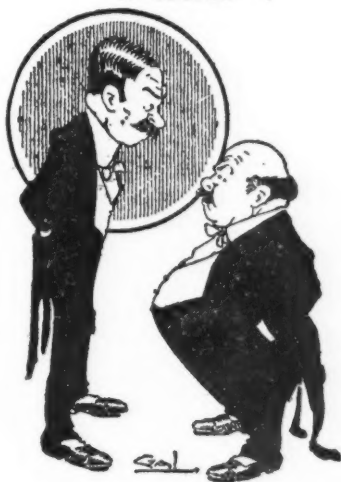
Lima, O.

WHOOPIING-COUGH—A NOVEL TREATMENT

Dr. A. R. Hallman, of Mexico, writes us of two children sick with whooping-cough, who were apparently cured by the use of ice-cream. One child had been affected two months, the other one month; so that there is a possibility that the disease had run out, and that the cough was simply one

of habit, or there may still have been an infection of the throat, or simply the results of the attack remaining. The ice-cream may then have acted on the congested or relaxed tissues, restoring them to a healthy condition, or it may have acted directly against the microorganisms inhabiting the affected tract. Whichever it was, the hint is well worth following out; and we should be very glad if any of our readers who feel inclined would try this very pleasant and acceptable remedy in all cases of whooping-cough, and let us know the results.

OF COURSE



Up to Date.

"Is your family physician of the new or old school?"

"The newest, I believe."

"What is his distinguishing peculiarity?"

"Small doses and big fees."

The accompanying cartoon comes from *The Daily News* of Chicago. We are glad to see that the lay press is beginning to appreciate the beauties of the "arms of precision." Of course it's the doctor that gives the small doses and the dosimetric granules who gets the big fees!

FROM A FLORIDA DOCTOR'S WIFE

On looking over your journal for March my attention was particularly called to your

article on "The Northern Winter." In imagination again I could see the earth covered with its mantle of snow and feel the keen air from the north upon emerging from the home fireside. But I was startled by your assertion that "more than one hundred of the citizens of Chicago are dying each week of pneumonia." That is a serious situation.

It is probable that many persons who have passed the meridian of life would be exceedingly benefited by spending the winter months in a southern latitude where "the flowers are blooming in winter" and one can spend nine-tenths of the time in the open air, and you rightly infer that the people do not know where to go to live well and cheaply.

But I must reply to your reference to the "flowery Atlantic Coast" with its great hotels and "their altitudinous rates," myself having lived in this region for the most part for very nearly forty years, both winter and summer. It is true that there are some of the finest hotels in the world along the East Coast, and with corresponding prices; there are also scores of beautiful towns and villages where one can live as economically and well as one could desire, besides having for neighbors people who have come from Chicago and other points in the Middle West and in the New England States. This is a very desirable portion of the state for winter visitors, on the above account. Do not understand me as depreciating the Gulf States; the climate is nice everywhere here, and many conditions are favorable for health in all sections of Florida. But for a real "homey feeling" as among old friends and kindly neighbors, I can recommend the East Coast from an actual experience of two-score years.

There is one thing that must not be overlooked in coming south, and that is the quality of water. This one item has more to do with the healthfulness of a place than climatic conditions alone. My husband, who is a doctor and one of the most enthusiastic members of Abbott's CLINICAL MEDICINE "family," has found this to be the case in a practice of many years in the state.

If there are any of the readers of the journal who would like to come down next winter, and who would be glad of the information that an old settler from Illinois can give, I will gladly write and tell them what I know regarding conditions here, and what our experience has taught us, and how the country has benefited us both.

In writing to the great railways send to the East Coast Railroad, Jacksonville, Fla., for their circular, and address with stamp the undersigned.

MRS. E. A. HILL.

Orange City, Fla.

TENIACIDES FOR INFANTS

An interesting question as to "teniacides for infants" is raised in the December number of THE CLINIC, page 1424. In a practice of forty years I have never seen an infant afflicted with a tapeworm. I have often asked myself the question, what dose of a teniacide should I give if an infant case came to me. My answer has been, a much smaller dose than for an adult. My youngest case was that of a boy eleven years of age, rather small for that age; I gave him, at 7 a. m. (allowing no supper the evening before), half the adult dose, he still fasting. At 10 a. m. his father brought a worm 24 feet long to my office and at noon the boy himself presented himself overjoyed at being rid of the parasite. He professed himself feeling all right in every way. As for myself I should hesitate long before giving to a child two to five years old a full adult dose of any remedy for tapeworm. It is better to be safe than heroic.

THOS. B. TURNBAUGH.

Bloomfield, Mo.

[While a little belated, the question raised by Dr. Turnbaugh is an interesting one. What is the youngest patient you have known to be afflicted with tapeworm? How do you treat children when the host of one of these troublesome parasites? We shall be very glad to hear from other readers of THE AMERICAN JOURNAL OF CLINICAL MEDICINE on this point.—ED.]



CLINICAL · MEDICINE POST-GRADUATE SCHOOL OF THERAPEUTICS

George F. Butler, M. D., Director
Thomas J. Mays, M. D.
Otto Juettner, M. D.

C. E. de M. Sajous, M. D.
William F. Waugh, A. M., M.
Alfred S. Burdick, A. B., M.

PART I.—LESSON FIVE

INDICATIONS FOR REMEDIES

THE FACE, EYES AND TONGUE

The Expression of the Face often-times tells us of inside life and it also tells us of the remedies that will remove wrong and restore health. It will often tell us, first, the condition of the brain; second, the condition of the sympathetic nervous system and the associated spinal cord; third, the condition of the circulation of the blood; fourth, as to whether there is any local disease; fifth, whether the patient is suffering pain; and, sixth, the resistance of the patient to disease.

We may by a close examination of the facial expression determine fairly well as to the circulation (determination of blood, congestion, inflammation), and we may also learn something of the condition of the brain and its functional activity. If the eyes are bright, pupils contracted, the face flushed, and there is a moderate contraction of the facial muscles, it is a pretty sure indication that there is *excitation of the brain*, especially if the patient is restless and uneasy. These indications lead us at once to think of remedies which will relieve vascular excitement, not only internal remedies, but the old-fashioned derivatives, counterirritation, etc.

Congestion is marked usually by dull eyes, dilated and immobile pupils, expressionless face, and the patient is dull and inclined to sleep, with a tendency to coma. Here our vascular remedies are to be considered, as well as the indirect means, such as counter-irritation, dry or wet cupping, and stimulant cathartics. If the eyes are full and protruding and there is puffiness of the face, with prominent veins (other symptoms of an *apoplectic condition*), stimulant hydragog cathartics are indicated, as well as the indirect remedies, such as cupping, counter-irritation, etc., together with such direct remedial drugs as may be indicated. Where there is *active inflammation* there is greater contraction of the muscles, especially those of the orbits and the frontal region, the face is deeply flushed, expression of the eyes is sharper, and the pupils are contracted. In this condition remedies, such as increase the action of the skin, kidneys and the bowels, are urgently needed, together with cardiac sedatives, such as aconitine, veratrine and gelsemin. Counterirritation to remote parts, to bring the blood away from the inflamed areas, is also indicated.

When *effusion* has taken place, the eyes are very dull, the muscles of the lower part

of the face are relaxed, and the orbicularis and frontal muscles are contracted. The symptomatic indications here would be counterirritation over the spine, like cupping, and vigorous stimulant hydragog cathartics. Mild doses of aconitine or atropine may prove useful.

Facial Aids to Diagnosis.—The appearance of the face may also lead up toward diagnosing some local disease, as for instance: Disease of the *respiratory* apparatus often will be shown by the expression of the nose and accessory muscles. One who is familiar with the clinical aspect of pneumonia, pleurisy, bronchitis, etc., must have recognized the pink expression of the nose and the contraction of the *alae nasi*.

Diseases of the *abdominal* and *pelvic viscera* often are known by certain expressions of the mouth. We have all recognized the white lines around the mouth, indicating the presence of *intestinal parasites*, and our minds are at once directed to the proper remedies. The melancholic, or despondent, expression, the depression of the angles of the mouth, and slight incurving of the lower lip, all point to mental depression, much of which may be due to *intestinal toxemia*, at least our minds are at once directed to intestinal antiseptics, cathartics, and drugs which will give normal stimulation to the circulation and restore functional activity. *Pains in the abdomen*, *pelvis* or lower extremities often finds characteristic expression in the mouth. Contraction of the orbicularis oris is often found in some diseases of the *reproductive organs*, especially of the female. There is often distinct retraction from the other muscles of the face, and the entire tissues seem thinned in many chronic diseases.

The relaxed, drooping mouth, falling jaw, trembling muscles, all show us the need of increased care to conserve vitality and of the employment of restorative remedies and eliminants. Increased color of the cheeks has been noticed as a symptom of thoracic disease for a great many years. The habitual recurring flush of one or both cheeks has reference, almost invariably, to an irritable or *diseased lung*. If we notice

this circumscribed flushing of the cheeks, our attention is at once attracted to the respiratory apparatus. Whatever the respiratory disease may be, we know that this symptom is always associated with a wrong of the *sympathetic nervous system*, especially in its relation to circulation and nutrition. Sometimes there is quite as marked pallor, and the evidence would be a want of innervation. While the bright color of the cheek, where it has reference to disease of the respiratory organs, tells us of an irritation and activity in circulation, deep color indicates the impairment of the circulation and of the life. The livid, purplish color in some cases of *angina pectoris* may be taken as a type. We have it in much less degree in *thoracic aneurism*, in *apoplexy of the lungs*, and in some very severe cases of *asthma* with congestion. The dark redness is always evidence of a difficult and imperfect circulation.

The color of the conjunctiva and sclerotica will sometimes give us information in regard to the circulation of the brain. If we find an injected conjunctiva (not the result of local disease) we conclude that the *cerebral circulation* is similarly affected. If the color is bright and the surface looks smooth and moist we have evidence of the determination of the blood. If the color is deep and the surface looks dull and dingy, or dry, and pinched, it represents hyperemia, with obstruction to the return of blood—the *apopleptic* condition.

In Superficial Disease.—If the color is a bright, healthy red, we know at once that the inflammation is simple and is not very likely to work a very great wrong to the part or to the body in general. It indicates irritation, and the determination of blood and of activity of circulation.

The second part of the wrong of circulation—*stasis*—is in but small proportion. This condition calls for general arterial sedatives, local sedatives, increased secretion and elimination. When the color is deep-red and dull, we are confident that there is marked impairment of life and arrest of circulation. The fact that there is too much blood in the part is evident,

that the capillaries are enfeebled and the circulation in them is sluggish or arrested, that change has commenced in the stagnant blood, and that the life of the part will be destroyed unless these wrongs are corrected. It says distinctly, strengthen the general circulation, while you lessen the frequency of the press and conserve and sustain the life of the blood by rest and food. Local application is to be made of stimulants—we want to strengthen the life of the part. If we select an internal remedy that is to influence the part from the blood, this remedy must be stimulant or tonic in its character.

The tongue may tell us of the condition of the digestive apparatus, the condition of the blood, the condition of the nervous system, and of the functions of nutrition and excretion.

Tongue Indications.—We all recognize that the full, broad, thick tongue is usually an evidence of atony of the digestive tract, especially of the mucous membranes. The pinched, shrunken tongue indicates a want of functional activity in the digestive apparatus. The fissured tongue points to chronic disease, usually, possibly a lesion of the kidneys, inflammatory in character. The coatings of the tongue all help us in making a diagnosis, and lead us toward the proper remedies to employ. Many of us have learned by experience that whenever we find a broad, pallid tongue—marked want of color in the tongue itself—such patients are always benefited by alkalis. Here there is a lack of the alkaline element in the body, and usually we shall find that the degree of urinary acidity is below 30 or above 45, showing a retention of acid waste-products in the body. Free elimination by the bowels and full doses of some alkali, such as sodium bicarbonate, will almost always correct these conditions. On the other hand, a deep-red, contracted, dry tongue is fairly good evidence of the want of an acid, as well as of that condition of the blood known as the "typhoid" condition. Some acid which will correct the undue alkalinity of the body-fluids will often help these patients.

Lesions of Innervation may be due to a change in the condition or structure of the nerve-centers or to some lesion external to these. The more common lesions are of the circulation, and we have them from the two opposite conditions: an excited circulation (too much blood in a part) or an enfeebled circulation (too little blood in a part).

If we have hyperemia, remedies which lessen excitation would be indicated, other things being equal. If it is anemia we should employ such agents as stimulate and give a more vigorous circulation. In the first cases the treatment may be temporarily depressive; in the second it is always restorative and tonic.

We bring out these points rather briefly to show the indication for certain remedies. For after all, many of our diseases are treated, and must be treated, symptomatically. It is not always possible to remove the cause of the disease. *The condition of the patient, the individual himself, must be treated, and not the disease-label.*

We wish to emphasize the importance of closer observation in the treatment of sick people. Laboratory methods of diagnosis are very essential, but almost equally as important, if not fully as much so, is the close observation of little things, such as the expression of the face; the position in the bed; the carriage or action of the patient when he comes into the office; the character of the pulse; the color of the skin; the appearance of the stool; all of which things will help immensely in selecting the proper mode of treatment. Every physician recognizes that when stools are colorless, grayish or clay-colored, it is a pretty good indication for some remedy, such as calomel, which will stimulate the flow of bile and increase the functional activity of the liver. We should not rely upon instruments altogether. The finger can be so carefully trained that it will notice the slightest variation in the surface of the pulse wave, as well as in its length. Feeling the pulse gives us a knowledge of the lesion and character of the circulation. Nearly

every lesion of the circulation can be distinctly felt to a cultivated touch.

ALKALOIDAL THERAPEUTICS

Palatability of the Remedy.—The physician who does not study palatability in the prescription of drugs has a good deal to learn. It certainly cannot be a matter of indifference that a child suffering with fever should have to be fought in order to put nauseous medicine down his throat. There is no question that the popularity among the laity of the homeopathist is very largely dependent upon the ease with which his little pellets are administered. Most active principles are bitter, but the little granules are exceedingly easy to swallow, even for a baby; and when dissolved in water the slight bitterness is not an objection. Even this may be disguised by the addition of a few granules of saccharin or of licorice, when the child is better. The patient who has fever prefers no taste at all above every flavor that was ever devised by the apothecary; and it is very rare indeed to have any patient, child or adult object to the slight bitterness of these granules when dissolved in water.

There is an enormous advantage accruing from this, and whatever there is in the question of palatability, you might just as well have it yourself as to leave it to the Christian scientists and the homeopathists. Palatability also has a great deal to do with the patient retaining the medicine on the stomach. Remedies that are nauseous, excite vomiting and will not remain in the stomach will not do much good. In fact, it is the unnecessary part of the medicine, the dirt, which generally causes the patient's disgust. It is therefore the unnecessary part of medicine which makes it unpalatable and objectionable.

In the incessant vomiting even of sea-sickness or cholera morbus it is exceedingly rare for the alkaloidal granules, taken as granules or in a little water, to be rejected by the stomach; and the fact that they are so quickly absorbed enables us to obtain their effect even if only two or three minutes elapse before vomiting occurs.

No Guesswork.—Another of the numerous advantages of the alkaloids that will be appreciated by physicians is, that by means of these articles scales, weights and measures are rendered unnecessary. No guesswork is admissible. Each granule contains exactly the amount specified, and the exact dose you require may be administered in a moment. One practical point here occurs to me—it is better to use granules than tablets. If the tablets are compressed very hard, they are liable to pass through the bowels undissolved, and their effect is lost; but if they are not compressed very hard, they are prone to chip off, so that the exactness of dosage is impaired. This is not the case with the granules, whose shape prevents this attrition. There is no loss from leakage; there is no loosening of the cork, to allow liquids to flow out and destroy the case or the contents of the satchel, besides being themselves lost.

Moreover the granules are not subject to deterioration. It has been ascertained that when the pure active principles are put up in granules with pure sugar of milk they can remain unchanged for an unlimited period. We know of the existence of granules which were made eighteen years ago; some of these have crossed the equator twice and have been through every possible vicissitude of climate which this globe presents, and no appreciable change has taken place; these granules are as perfect as the day they were made. So long as moisture is kept from them this will be the case.

Strictly Scientific.—Finally—I have kept the most important of all my points for the last. The use of the active principles is based upon a strictly scientific foundation. Our knowledge as to the physiologic action of drugs has been derived mainly from physiologic experiments. When the great men of our profession, Brunton, Ringer, Waning, Fraser, Murrell, Phillips in England, the elder Wood and Hare in America, and numerous others, commenced to make observations on vegetable drugs, for the purpose of exactly fixing their status, they were compelled to resort to the active

principles in order to make their work of any value. Of what possible use was it to give observations upon tinctures or extracts when no two tinctures or extracts of that plant were of the same strength, either as to quality or quantity? They were therefore compelled to take up active principles. Consequently, in treating of belladonna, you will find that it is atropine of which they spoke; and upon atropine, morphine, quinine, strychnine and the other active principles our entire scientific knowledge of the action of drugs depends.

Nevertheless it is a curious comment on the habits of the time and the strength of the conservatism (or ruttness) of the medical profession, that after ascertaining the exact action of these active principles on the human economy, they attempt to deduce therefrom the therapeutic application of the crude drugs from which they come. In other words, after extracting and fully testing the active principles, they put these clean agents back into the dirty mess from which they had taken them and offered it to their patients.

Just why did they not use the active principles? Habit, conservatism, the ruts in which many of the profession move.

It happens from this, however, that as to the active principles we have the most precise data obtainable as to their action on the human economy; and this enables us to apply these agents with a precision absolutely impossible with the older preparations.

This results, therefore, in this—and I will ask your especial attention to this point: the therapeutics of the active principles is not based upon the therapeutics of the crude drugs from which they came. There may be a certain similarity in the two; in fact there may be a very close similarity, but they are not identical. We do not use quinine because somebody used Peruvian bark a hundred years ago, but because it is quinine; and our ideas as to the application of quinine are derived from the quinine itself and not from Peruvian bark. We use strychnine for itself. We use each of the active principles for itself, and we ought to get out of

the habit of looking upon them simply as forms of the crude drug.

Dissociate Crude Drugs From Their Alkaloids.—If we appreciate these facts we shall get rid of the greatest objection which occurs to those who are accustomed to the old methods and ways, and hesitate to take up the new. They cannot dissociate emetine from ipecac, for instance; nevertheless the uses of emetine are simply impossible to us if we employ ipecacuanha. This latter is notoriously one of the most uncertain drugs in the materia medica and the most subject to decomposition, so much so, in fact, that we seriously question if there is a single fluid extract of ipecac in existence which is worth anything whatever at the end of a year.

Ipecac and Emetine.—Ipecacuanha contains two alkaloids; one is known as cephaeline; it is an exceedingly active emetic. The other is known as emetine; it is scarcely emetic at all, unless when taken in very large doses and well diluted; but it has a very remarkable action upon the liver and upon all the secretions of the digestive system, stimulating them and especially tending to produce a healthy secretion to take the place of the vitiated secretion in cases of disease of the alimentary system. Emetine is one of the most harmless and effective sedatives in existence. For instance, take a patient who is on the verge of delirium tremens, crazy for liquor; give him a full dose of pure emetine, all that he can take without nausea. He will go to sleep in a few minutes, sleep eight hours, and awake free from the desire for liquor, ready to eat and relish a good breakfast and go out to his business. I know of no other drug which can take its place. It is absolutely impossible to secure any such results from ipecacuanha in any dose. If you give enough to act on the liver it is certain to be vomited.

Summary.—I would therefore say, in summing up, that the use of the active principles teaches precision in the doctor. Knowing exactly what his drugs will do, he becomes accustomed to close observation of his patient in order to ascertain exactly

the condition which is present, that he may apply exactly the proper medicament to restore health. This induces an alteration in his practice in another respect: Diagnosis becomes even more important than it was before; but it is a different diagnosis from that ordinarily employed. Ascertaining the name of the disease is not so important as is ascertaining exactly the departure from health. The doctor learns to recognize certain morbid conditions as such, and he knows also exactly what to do to remove those conditions and restore the physiologic equilibrium which we call health. Nevertheless, if he were called upon to give an exact name to the disease present, he might find himself unable to do so. Do not think from this that I am endeavoring to encourage a loose habit as to diagnosis. It is of the utmost importance; but there are two diagnoses to be considered; first is the name-diagnosis, and second is the diagnosis of the conditions. The more the physician studies at the bedside the greater will be the value he puts upon the latter. We hope that he will not undervalue the former thereby.

I trust that I have given you in these points something to think about. You may not agree with me. I hope you won't—in all respects; for it is not our desire to secure disciples but rather to arouse thought in the minds of our friends. What you think for yourself, the conclusions you come to, are of much more value to you than any you may derive from me or from any other human being. The whole system that is built upon the use of the active principles tends to the individualization of the doctor, to the development of his own personal qualities as a diagnostician, and a therapist, as it does to the individualization of the case. You, and not your master, are treating this particular patient. You learn to look upon him as such, to look upon your duty as that of ascertaining the condition of that particular patient at that particular time and place, and to apply such remedies as will restore that particular patient to the condition of health.

It is thus the most direct of all systems, and it furthers directness of aim as well as

accuracy in the physician. Confidence as to the action of remedies gives the physician confidence in other things, and this in turn induces confidence on the part of the patient.

The experience of every physician who has adopted these remedies and methods dependent upon them is, that their standing with their clientele soon improves, and they are depended upon more absolutely than they were ever before. And the reason is an obvious one—they deserve to be depended upon more than they did before. They know what they are about, they know what they are doing, they know what is going to happen when they give a dose of medicine, and the ulterior effects of this are simply tremendous.

PHYSIOTHERAPY

HYDROTHERAPY (CONCLUDED)

We have seen on a previous occasion that hydrotherapy is only one of the subdivisions of the general subject of thermotherapy, meaning by the latter all methods of treatment that depend for their therapeutic action and clinical uses on the physiological effects produced by different degrees of temperature, i. e., by the action of variable degrees of heat and cold. We have discussed the salient features of the whole subject under the head of hydrotherapy, because the latter is the classical type of all these methods, belonging under the great general head.

What carrier of high or low temperature we use, is of secondary importance. We may employ water, air, vapor or any other agent capable of carrying heat or cold. The principal thing is to understand the theory of these applications in the light of their physiological action. Hydrotherapy illustrates the theory of these applications better than any other subdivision of the general subject, more especially the physiological effects of the different so-called "reactive" applications.

We have considered the general features of these "reactive" applications as exemplified by the (reactive) immersion, douche or pack. It now behooves us to discuss the "non-reactive" applications.

A non-reactive application is a continuous application of heat or of cold or of an indifferent temperature. By heat we mean any degree above the normal temperature of the body. By cold we mean any degree below the normal temperature of the body. An indifferent temperature is approximately the ordinary normal body-heat. To avoid or prevent reaction, the application must be continuous. This is its essential feature. In keeping with the classification given, we may discuss the subject under three distinct heads, to wit:

I. Non-reactive Applications of Heat.—If heat is applied to the body-surface or any part of it continuously, the first effect will be one of relaxation of the skin and of its component parts. This effect is partly physical, partly physiological. The relaxation consists in a yielding, as it were, of the fibrous or erectile elements in the make-up of the skin. The skin will be less tense and will show a condition of "velvety fulness"—to borrow one of Priessnitz' characteristic epigrammatic expressions. The process of relaxation will involve the contractile elements in the structure of the vessel-walls. The wall of the vessel will lose its tone and a collapse of the tube will result. The tube will become inelastic like a bag.

Naturally it will accommodate more blood than in its previous firm and elastic state. The blood will crowd into the baggy vessels and an increase in the quantity of blood is the result while the blood-pressure does not rise in proportion.

The term "blood-pressure" is adapted from the pressure of an elastic vessel-wall upon the column of blood in the vessel or, if you please, the pressure of a column of blood upon the walls of its container. Inasmuch as the pumping force of the heart represents the *vis a tergo* which furnishes the pressure upon the blood column and, through the latter, upon the vessel-wall, it is synonymous with what we designated as blood-pressure. This is the intravascular pressure which is the joint product of the pressure of the blood on the vessel-wall and the amount of resistance offered by the latter. When the resisting power of the vessel-wall

is exhausted and the circular fibers of the arterial coat are completely relaxed, the blood-pressure (intravascular) becomes less. If this action involves the surface of the whole body, less demand will be made upon the heart because the blood-mass in active circulation in the interior of the body has been diminished. This is the primary effect of a continuous application of heat.

In what respect does this primary effect of continuous heat differ from the secondary hyperemia produced by a reactive application of cold, e. g., by a cold moist pack? The violent (primary) contracting action of the latter increases blood-pressure in a centripetal direction, i. e., toward the heart. The resisting energy of the vessels is taxed, beginning with the smallest arteries in the skin and continuing inward toward the central power-station (heart). The heart is finally reached and subjected to a strain. It is called upon to resist and overcome the pressure of thousands of columns of blood surging toward it. This presupposes a certain degree of soundness on the part of the heart-muscles to resist the primary action of a reactive application of cold. When "reaction" occurs, the direction of the pressure is centrifugal, i. e., away from the heart. In the case of a continuous application of heat to the body-surface, the direction of the pressure of blood is at once centrifugal. The heart is subjected to no strain. This is the great difference between the two kinds of application. We may also add that there is no undue strain of the vessel-walls in a continuous application of heat. The latter, therefore, is by all odds a safer and better application in all cases where the resisting capacity of the heart-muscle and of the vessel-walls is doubtful, owing to organic disease of the heart or degenerative changes in the walls of the arteries. The same holds good in cases where there is a tendency toward internal congestions. This is notoriously the case in all organic diseases of the kidneys.

When after an application of heat, the vessel-walls are relaxed, the blood-mass being increased while the blood-pressure is diminished, a condition of superoxidation

in the hyperemic cutaneous structures supervenes. The increase, as we have seen, is in the arterial blood. There is more oxygen in the cutaneous tissues than under ordinary conditions. A number of effects are bound to follow in physiological sequence. Metabolism in the hyperemic structures becomes more active. Combustion is more rapid and more intense. There is a greater output of heat. The organism at once tries to throw off the surplus heat. The skin becomes active, radiation of heat-units takes place, the skin sweats. Diaphoresis, as we have seen on a previous occasion, is a process of forcible elimination of waste-heat. The presence of an increased amount of arterial (oxygen-carrying) blood in the body-surface, makes the latter and the contiguous territory a less favorable culture-soil for germs of various kinds. Germs are killed whenever oxygen in physiological quantity is present. If the amount of oxygen is increased, the germ-killing power of the tissues becomes still greater. In the language of latter-day pathology, the opsonic index of the body is raised.

Still another physiological effect follows a continuous application of heat. The forcible radiation of heat-units eventually lessens the proportionate amount of liquids in the body. The organism, in its metabolic, self-sustaining efforts, works under higher pressure. The absorbent vessels share in the increased activity, in fact they perform the major portion of the task of keeping the machinery in motion. Absorption becomes more active and intense. Adding to this the vastly augmented elimination through the skin, we can readily understand that regeneration of the physiological elements of the body is a necessary result.

The therapeutic indications are clear. They refer to all conditions of autointoxication or retention of waste in the body. Auto-intoxication in one of its forms is the biggest and most important etiological factor in medicine today. We are only beginning to understand its overpowering importance, thanks to the labors of Metchnikoff and Bouchard. It suggests the etiology and pathology of such common conditions as

rheumatism, gout, neuralgia, biliousness and the thousand and one ailments of the organs of assimilation and elimination. It furnishes a tangible and plausible explanation of the many disorders, classified as "functional" and "reflex" diseases.

In all these conditions nonreactive applications of heat furnish a positive and rational therapeutic method. They need not necessarily be applications of hot water. Superheated air and dry heat from incandescent electric globes have become popular modes of application with many physicians nowadays. The physiological effects produced by dry heat are suggested by the statements made above. In the light of the latter no one ought to have any difficulty in understanding the theory of the so-called "baking" so extensively employed in the treatment of rheumatism nowadays. We shall have occasion to discuss the details of technic on a future occasion.

2. Non-reactive Applications of Cold.—There is probably no subject in the whole domain of physiotherapy that is so thoroughly misunderstood as the use of cold water. A careful consideration of this subject is well worth our while.

What is the result of a continuous (non-reactive) application of cold? Cold, in and of itself, is the negation of life because all the manifestations of life depend on, are identified with and produce heat. If cold is continuously applied to the body-surface, the structural elements that enter into the anatomical make-up of the skin are contracted. The blood-mass is lessened because the vessels contract. The skin is poorly nourished under these conditions and its functions decrease accordingly. The respiratory function of the skin as well as its diaphoretic action is depressed. The results are retention of waste, a favorable condition for the establishment of autointoxication in its manifold forms, a development of culture-soils for germ-life and coincident destruction of the opsonic resisting power of the body. The tendency of organic activity is under these conditions in the direction of retrograde changes. The grand finale must be suspension of

vitality or death. Let us remember once for all that the effects of continuous non-reactive applications of cold are to be studied and understood so that we may be better able to avoid and prevent them. Their use is never proper or indicated.

Let us quote a familiar example. The common treatment of *heat-stroke* in vogue in most of our hospitals consists in the continuous application of cold. The patient who has been exhausted by heat is prostrated. The metabolic machinery of the body is working under lower pressure, excretion of waste (CO_2 , etc.) is impaired, toxins are formed in the organism and, carried by the blood-current. To put such a patient in a continuous cold-water bath, as is done in most of the hospitals, is contrary to all laws of physiology. There is no word in the English language that can adequately express the absurdity of such a procedure. By applying continuous cold to a heat-victim means to lessen his chances of recovery by encouraging the multiplication and dissemination of toxins and preventing their excretion. The pores of the skin are closed, no heat-units are radiated, the patient burns up in an internal fire and is, in addition to all this, poisoned by the toxic material within. In these cases the skin should be stimulated and its function enhanced and intensified. Heat is the proper agent, not cold! This example teaches us the physiological effects of continuous cold applications and shows why they should not be used.

Let us quote another familiar example. The *ice-bag*, in cases of sprained ankle or for that matter in cases of appendicitis and other congestive and inflammatory conditions, is still used by the many who know nothing about hydrotherapy and the physiological effects of heat and cold. Its antiphlogistic effect is a myth; the patient recovers, not as a result of the treatment, but in spite of it. Frequently enough the recovery is incomplete because of the damage done by ignorance. In such conditions as those mentioned, continuous cold is opposed to every intention of nature. In cases of *sprained ankle* the object of treatment should

be to encourage the healing process, to increase the nutrition of the part, to stimulate absorption. This is accomplished by heat aided by other suitable means (e. g., massage). The ice-bag depresses the nutrition and functional capacity of the part, prevents absorption, favors chronic irritation, congestion, infection and germ-growth, and inhibits repair. In cases of *appendicitis* in the first stage heat will stimulate the part and increase its resisting power, not to speak of the anodyne action of heat. If infection has taken place, heat will increase the supply of blood and, therefore, the amount of the oxygen-carrying, germ-destroying element. Cold would take vitality away from the part and aggravate the condition.

The same holds good in congestive and *inflammatory conditions* anywhere in the body. Occasional cooling of the inflamed region, as practised by Priessnitz, is proper. Freezing the part by continuous applications of cold is always wrong and dangerous. The ice-bag in pneumonia is less objectionable because the application does not reach the inflamed area and, for this reason, as an antiphlogistic is inert. Its action has nothing whatever to do with the effect which is ordinarily attributed to it in these cases. The same may be said of the ice-bag in meningitis. Of these conditions and the use of the ice-bag we shall have occasion to speak later on. Let us remember that continuous applications of cold should be studied only with reference to the reasons why they should not be used. Therapeutically they are, *per se*, out of the question.

3. **Continuous Applications of Indifferent Temperature.**—That the effects which might possibly follow these applications are not produced by the thermic element, is too plain to require demonstration. The effects are purely physical (mechanical). On a previous occasion we referred to endosmosis of water through the skin. The tissues of the skin take up watery elements and thus get into a quasi-edematous condition. In this way the sensibility of the skin or rather of the terminal corpuscles of

the nervous system is obtunded. The response of these structures to outside impression is diminished and a condition of quietude of the central nervous system is established. The applications, therefore, are said to produce a sedative effect. It is needless to refer to their cleansing action, a hygienic and therapeutic effect not to be underrated. The principal feature of these applications is the absence of thermic shock.

External and Internal Uses of Water.—Our discussion up to this time has been in reference to *external* applications of heat or cold through the agency of water as the carrier of the thermic agent. The principles underlying the physiological effects and therapeutic uses of these applications do not differ from those governing the *internal* uses of water. Here again the effects are either physical (mechanical) or physiological (thermic). Frequently both physical and physiological effects are included in the therapeutic action of one kind of application.

Physical (Mechanical) Effects.—These effects follow if water is introduced into the body or into any of the cavities of the body either for the purpose of increasing the proportion of watery elements in the body (drinking large quantities of water, introducing water or salt solution by hypodermic or intravenous injection or by hydrolysis) or for the purpose of irrigating or cleansing (colon flushing, bladder irrigation). Inasmuch as the drinking of large quantities of water irrigates and cleanses the organs of excretion (skin, kidneys), the mechanical action of water-drinking may be said to be physiological in a sense. In these uses of water the idea of the therapeutic use of temperature is not included. The water carries an indifferent temperature.

Physiological (Thermic) Effects.—Short applications of hot or more particularly of cold water to the mucous membrane of the rectum produces a thermic shock which, in turn, is followed by a powerful alterant, stimulant and antispasmodic action. These applications are used to combat hysterical conditions and for the purpose of resuscita-

tion. If the applications are prolonged, their effects are produced according to the general principles which we have laid down for the corresponding external applications of water, hot or cold. Continuous applications of heat to the gastric mucous membrane produce effects which are analogous to those following continuous immersion of the body surface in hot water. The continuous use of cold in the stomach is of course wrong in principle and disastrous in its effect. The drinking of ice-water, cold beer, soda-water and the eating of ice-cream, especially when the stomach is empty, must be most emphatically condemned. The vessels of the stomach are contracted, the function retarded or entirely suspended, a passive hyperemia results, the tone of the stomach-wall is destroyed and catarrhal thickening follows. Thus the legion of stomach disorders is produced which makes our ice-water drinking and ice-cream consuming American people dyspeptics and invalids.

In conclusion let us remember that heat and cold in the hydrotherapeutic sense do not represent extreme degrees of high and low temperature but only such degrees as are compatible with the contracting and relaxing function of the tissues of the human body. Extreme degrees of heat and cold, such as are used in surgery for the stoppage of hemorrhage from a bleeding surface, have no hydrotherapeutic significance. Their effects are mechanical (contraction of tissue *en masse*) and chemical (coagulation of albumen in the tissues and in the blood).

THE POST-GRADUATE COURSE OF THERAPEUTICS

In my work upon the first lesson of this course I soon reached the conclusion that it involved considerable labor, more perchance than some were able to give. The satisfaction, however, of being able to store away much practical information that would have its fruition in coming years amply justified such an expenditure of time. A little period and labor each day would meet this requirement.

From my experience with physicians I know there are some who are popular and have a practice that is not based entirely upon the extent of their knowledge of medicine. They are little interested and have no special aspiration for the acquisition of modern scientific therapeutics.

There are others who simulate the attitude of some members in the labor unions of getting much for little. This sentiment does not meet the general demands of society today. Truly, "there is no excellence without labor." Verily, the view presented by Solomon is in conformity with this conception: "Whatsoever thy hand findeth to do, do it, with thy might; for there is no work, nor device, nor knowledge, nor wisdom, in the grave whither thou goest."

In reply to the objections of several members relative to the number of questions Dr. Butler assumes a quasi agnostic attitude, yet expresses his desire in the performance of the work on the part of the students. If this is conscientiously done, very little extra labor would be required to write the responses to the questions.

In view of the great amount of labor and expense involved in the preparation of this scheme for the betterment of the subscribers of THE AMERICAN JOURNAL OF CLINICAL MEDICINE it seemingly is an act of misappreciation either to ignore or take exceptions to the monthly requirements of our good friend, Dr. Butler. As Professor of Therapeutics and Clinical Medicine, he would not be likely to impose a heavier task than we are able to accomplish.

In reply to the question in the lesson relative to the reasons for the proportions of the ingredients in the section on The Laxative Pill, one member stated "that the combination worked." This reason was no reason at all, yet strictly in accord with much of the empiric practice of galenic medicine.

In the January, 1908, number of *Correct English* (a highly interesting and practical educational periodical for cultured people) the editor, Miss Josephine Turk Baker, of Evanston, truly says: "If you can't tell why, you don't know why."

The truism presented by the Psalmist, "Man is fearfully and wonderfully made," has been verified in countless instances, and in the delicate recognition of this fact it is not surprising that it would be difficult, and even impossible, always to ascertain the cause of a deviation from the normal condition. The state developed by this aberration unfolds a most important and profound problem in which a knowledge of the physiological action of remedies becomes a supreme necessity. Without this comprehension the remedies applied fail as scientific agents. In their proper adjustment and harmony to the actual condition the noble ideals of the physician are attained and the afflictions of life are mitigated or the patient restored to health. Toward the restoration of the status of modern medicine, largely attributable to the teachings of the schools and that of medical literature, an inviting field meets the vision. The reputation of the distinguished educators, represented by Dr. Austin Flint, Sr., of whose first edition of his work on "The Practice of Medicine" a critic said the therapeutics were "*nil*." Later the views of Osler and others have been accepted by the lesser lights of the profession as emanations of Holy Writ.

The dicta of the textbooks in use inculcate the idea that certain diseases pursue a self-limited course uninfluenced by any medicinal remedies, and what is accomplished is mainly due to the trained nurse and the "*vis medicatrix naturæ*." The sequel is well illustrated by an incident related by Judge Collamer, at one time United States Senator from Vermont. In one of his lectures on "Medical Jurisprudence" he said that an old physician of that State was in the habit of taking the credit for his services when the patient recovered, but when he died, it was the Lord's work.

Aside from the fact sought to be accomplished by the administration of a galenic drug, the purpose may be thwarted by the existence of a by-product. This uncertainty of result reveals one great advantage in the use of the alkaloids, and greater simplicity and accuracy in the study of the effects of

drugs. The great importance of a complete mastery of this branch of medicine, emphasized immensely, as it has been, by the senior editor of *THE CLINIC*, comes as a *renaissance*, and evolves greater confidence in the efficiency of medicaments in cases where the diagnosis is somewhat obscure. In this contingency a recognition of the manifest condition of system expressed in the symptomatology leads the way toward scientific achievements. In the realization of the *status quo* of the profession we are fully cognizant of the fact that we have not attained "the heights" where, as for Napoleon, "there are no other fields to conquer."

L. S. BLACKWELL.

Perth Amboy, N. J.

SELECTIVE CELL-ACTION

I do not wish to appear aggressive or to cast any reflections on the good and appreciated work of Father Virchow, but to me the idea of selective cell-action given by this scientist does not quite hold good. The cells of the body of the various tissues have no fixed formulæ, showing that at no time are the cells of a tissue fixed.

We understand that the metabolism is constantly going on and the heat of the body is maintained by chemical action in the tissue-cells themselves. One of the principal actions that takes place is that connected with the gases of the blood. We know that the cell generates carbonic acid gas, and we know also that the blood returning from the tissues is heavily charged with it. We also know that when the blood leaves the lungs it is surcharged with oxygen and returns to them greatly lessened in it. This leads us to believe that the free oxygen is given up to the bodies of greater chemical affinity and that the carbonic acid gas is given up to the blood for the same reason. You may ask, how does the blood lose its carbonic acid gas when returning to the lungs. It is by diffusion, as it is only loosely held in combination. The carbonic acid gas is absolute evidence that a chemical change takes place. We also know that oxygen is not the cause of it, unless this action takes place in the

blood itself, for which there is nothing of past experience to show and which we have reason to believe does not occur.

We know from use of the microscope that there are many different kinds of cells, as connective tissue, epithelium, muscular tissue, etc. We know that each tissue is different in its cell composition and that it is a liquid compound forming them, making the cell and nuclear composition. We know that the cell-contents has an affinity for certain stains, and also that it has the nucleus and so forth. Then is this not evidence that other things outside of the general composition of the cell-matter may enter into its composition either by chemical change or by simple suspension? Since the tissues vary in composition almost each day or hour, this is evidence to disprove selective cell-action. If they were of a definite composition then the great affinity for the lacking thing would be clear, but foreign substance would still be a question, as to how it could enter a definite compound.

Now let us look at this matter from a common-sense standpoint and trace it from the intestinal tract to the cell.

Food must be liquefied before it enters the blood. This is done in the intestinal tract, absorption beginning in the mouth and continuing through the entire tract. We all understand the physiology of the process. It does not enter the blood as fast as it becomes liquid, but only as the blood will take up, that is, to saturation. All above this amount remains in the digestive tract until the blood can take it up, which in some cases is never, as the next meal comes and adds another quantity and keeps the intestinal tract thoroughly full all the time. This digested matter ferments and decomposes and coats the tract from one end to the other, this accounting for the saying, "As is the tongue so is the intestinal tract." A coated tongue is the sign of too much food.

Now back to our subject. We all agree that every tissue is thoroughly bathed with blood, reaching and surrounding every cell. Then every cell of the body is subjected to a solution saturated with carbon, nitrogen,

oxygen and other useful constituents for forming compounds with the cells of the different tissues. Each set of cells having different cell-contents and meeting with the same saturated blood, forms compounds peculiar to its own conditions. For example, say one tissue be called potassium, another silver, another sodium, and the circulating medium be hydrochloric acid. One can readily see that the same fluid in contact with each tissue would form a different compound. The blood keeps, as nearly as possible, the cell-contents standardized, and a chemical action takes place and emits carbonic acid gas, thus keeping up the body-warmth through the chemical action.

I believe also that the food-mass in the bowel acts as an absorbent for poisonous materials, taking them from the circulation as it passes through the larger intestine. Did you never wonder why the vessels are so thick and plentiful about the lower bowel, especially the inferior hemorrhoidal?

I should be glad to see other ideas on the above and will answer any questions I can to make my idea plain if not so made in this article.

G. LLEWELLYN BAUGHMAN.

Rollinsville, Colo.

INCOMPATIBILITY OF ALKALOIDS AND BROMIDES

Anent Dr. E.'s criticism. "Don't give up the ship." "One swallow doesn't make summer," but one swallow of a mixture of strychnine sulphate and potassium bromide might make a corpse, especially if the solution has been in use for several days, say an 8-ounce mixture given in dram-doses.

A patient down here died from evident strychnine poisoning by taking the final dose of an 8-ounce mixture of the above ingredients. With a shake label all will be well, but otherwise I should dislike to give such a mixture. I use the word "mixture" advisedly instead of "solution," though to the eye, when prepared, a perfectly clear mixture may result.

A German pharmacist who worked with Tromsdorff and Merck advised me *never*

to combine the above in a prescription without calling the writer's attention to what was liable to occur, and then put on "Shake" in big letters. This man used only Merck's chemicals and alkaloids for prescriptions.

W. TAYLOR EDMUNDS.

Ferguson, S. C.

HYPODERMIC MEDICATION

There is no surgical procedure resorted to by physicians with half the frequency as is the hypodermic injection, and it is perhaps this very familiarity with the procedure which breeds the seeming contempt with which a great many practitioners regard it. However, a little consideration of the subject and a little attention to details will be more than repaid by improved results.

There are four points to consider *before* making a hypodermic injection:

1. The condition of the instrument.
2. The purity and solubility of the medicament.
3. The selection of the site of injection.
4. The preparation of the site of injection.

First: The instrument should be of a pattern and material which will enable it to be easily cleansed and sterilized, and this requirement eliminates the syringes which have leather or rubber pistons, and leaves for our consideration those of all glass, all metal, and of glass with mineral- (asbestos) packed plunger.

The first kind is very easy to care for, but rather fragile, as the grinding of the glass to make the plunger fit air-tight seems to weaken it. The second kind is very durable, but must be taken apart and wiped dry each time it is used, to prevent rusting. The third kind, to my mind, is the ideal form of instrument. It needs very little care to keep it in an aseptic condition, and, with careful use, is reasonably durable. The glass instruments offer also the advantage that one can see whether or not one has expressed all the bubbles of air.

The needle can be boiled in a teaspoon over a lamp before being used. It should never be used more than three or four times,

as it becomes blunted by use and causes unnecessary pain. It is better, when time suffices, to boil the whole instrument before using it, but in cases of urgency the time spent in doing this might prove fatal; and so here it is better to risk the possibility of a local infection rather than the loss of a life. The syringe should always be tested to be sure that it is in working order before the needle is introduced.

Second: This point is met by buying goods from those houses alone whose reputation for quality of output is above suspicion and then making a personal test of the solubility of the various hypodermic tablets.

Third: The site of injection should be selected where (1) the tissues are fairly loose; (2) the lymphatic circulation is free; (3) there are no large blood-vessels near the surface; (4) there is least free cutaneous nerve-supply; (5) there is least danger of friction; (6) there is easy access to the part.

Because, if the tissues are too firm and unyielding the injection will give unnecessary pain; the medicaments are carried into the circulation largely by the lymphatic system, and free lymphatic supply means rapid absorption; the accidental injection of powerful remedies in solution into a large vein is usually attended by alarming symptoms; the less free the cutaneous nerve-supply the less danger of causing pain by striking a nerve-end; the friction of the clothes or other parts of the body may set up irritation at the point of injection; and if anything should go wrong, it is important that free access to the part be obtainable.

When a patient is fully dressed the part of easiest access which conforms to these requirements is the external aspect of the forearm or arm. When a patient is in bed the injection may be made over the abdomen or the anterior or external aspect of the thigh. The last-named site is the one I choose when practicable, as the cutaneous nerve-supply is here so poor that nine times out of ten the insertion of the needle is entirely painless.

Fourth: In preparing the site of injection it should be thoroughly scrubbed with soap

and water and rinsed off with boiled water. No antiseptic is, as a rule, necessary.

For a strictly hypodermic injection the needle should not penetrate the muscular tissues, but the contents of the syringe should be discharged into the subcutaneous reticular tissue, and not into the skin itself.

The skin at the point of injection should be firmly grasped for a moment by the thumb and finger of the left hand to cause partial pressure-anesthesia, and the needle should be quickly introduced its full length and then withdrawn about 1-8 inch before the injection is made. This latter precaution will obviate trouble even if the needle should pierce a small vein.

The amount of sterile water used for the injection should be no greater than is necessary to dissolve thoroughly the medicament, as a large volume of fluid causes unnecessary pain.

Some authorities assert that the nearer to the site of the pain to be relieved the injection is made the more prompt will be the relief, and this suggestion may be followed, under the restrictions mentioned above, regarding the choice of a site for injection.

After using the syringe it should be thoroughly cleansed and dried and replaced in its case, which should be aseptic and always kept in a sanitary condition.

GEO. B. LAKE.

Wolcottsville, Ind.

THE ALKALOIDS

The list which follows is submitted by Dr. M. G. Price of Mosheim, Tennessee:

NAME	CHEM. FORMULA
Aconitine, amorph.	$C_{36}H_{49}NO_{12}$
Apomorphine	$C_{17}H_{17}NO_2HCl$
Aspidospermine	$C_{23}H_{30}N_2O_2$
Atropine	$C_{17}H_{23}NO_3$
Avenin	$C_{40}H_{71}NO_{18} (?)$
Berberine	$C_{41}H_{51}NO_{11}$
Boldine	None given
Brucine	$C_{23}H_{28}N_2O_4 + 4H_2O$
Caffeine	$C_8H_{10}N_4O_2 + H_2O$
Cocaine	$C_{17}H_{21}NO_4$
Codeine	$C_{18}H_{21}NO_2$
Colchicine	$C_{23}H_{25}NO_6$
Coniine	$C_8H_{17}N$
Duboisine	$C_{17}H_{23}NO_3$
Emetine	$C_{15}H_{22}NO_2$
Eserine	$C_{10}H_{21}N_3O_2$

Gelseminine	$C_{12}H_{14}O_2N$
Guaranine	$C_8H_{10}N_4O_2$
Heroin	
Hydrastine	$C_{21}H_{21}NO_8$
Hydrastinine	$C_{11}H_{11}NO_2$
Hyoscyne	$C_{17}H_{21}NO_4$
Hyoscyamine	$C_{17}H_{23}NO_3$
Morphine	$C_{17}H_{19}NO_3 + H_2O$
Muscarine	$C_8H_{15}NO_3.HNO_3$
Narceine	$C_{23}H_{29}NO_9, C_2H_4O_3$
Physostigmine	$C_{15}H_{21}N_3O_2 (?)$
Pilocarpine	$C_{11}H_{16}N_2O_2$
Quinine	$C_{20}H_{24}N_2O_2 + 3H_2O$
Sparteine	$C_{15}H_{20}N_2$
Strychnine	$C_{21}H_{22}N_4O_2$
Veratrine	$C_{32}H_{40}NO_9 + H_2O$

COUNTERIRRITANTS AND THEIR MODE OF ACTION

On page 270, Part I, Lesson 2, of the Postgraduate Course, the statement is made, under the heading "Vesicants," that the effusion of serum resulting from them is found between the epidermis and dermis. Instead of bothering you with a drawing, to prove the anatomic fallacy of this statement, I would refer to any drawing illustrating the anatomy of the skin in some book on histology.

The skin is divided, first, into two main divisions, the epidermis and dermis. The former contains, from below up, the stratum "germinativum," stratum "granulosum," stratum "lucidum," and stratum "corneum." The dermis contains elastic and fibrous connective tissue, various forms of cells, smooth muscle-fibers, blood-vessels, nerves, glands, etc. As we all know, nerve-endings may extend into the epidermis, and of course ducts of sweat-and oil-glands pass through the epidermis to the outside world.

Now what would result should a blister form between the epidermis and dermis. On removing the serum and its covering we would get an "acute ulcer" which could only heal by obtaining cells from the stratum germinativum at the circumference of the ulcer. What really does occur is this, and clinically we see it often enough:

On removing the transparent covering of a blister, a red and very sensitive surface is seen studded with minute papillæ. In two or three days this surface is no longer sensitive because the productive layer of the epidermis (the stratum germinativum)

has not been destroyed. A pustule or a burn of the second degree shows histologically an absence of this germinative layer, and hence the healing will be slower, since the resulting granulation-tissue must receive cells from the stratum germinativum to cover it.

Now a word as to the *modus operandi* of counterirritants. I believe in the reflex-stimulation theory and that the blood-vessels allow the passage of serum, relaxation of their walls resulting through their vasomotor supply. The following simple experiment seems to prove this:

To the lower extremities of a hemiplegic apply mustard plasters of equal strength, choosing two corresponding sites on the legs. On the unaffected leg will appear the characteristic inflammation, but on the paralyzed limb, sensation being gone, the skin becomes moist and different in appearance from the other side, a condition not unlike that which we find when two moist skin-surfaces are in contact.

St. Paul, Minn.

E. OLANDER.

[We are sorry that lack of space made it impossible for us to publish this last month. Dr. Olander's little article is important and should be read very carefully. It is just such criticism as this that we want to elicit.—Ed.]

CARING FOR THE HYPODERMIC SYRINGE

I always carry a small bottle of alcohol with which I rinse the needle and barrel of the syringe by drawing up a syringeful and, after holding it in the barrel for a moment, expel it by driving down the piston. Then remove the needle and replace both in the case. Since using the alcohol as a rinse, I do not use wires and have no trouble with rusty or clogged needles.

WM. C. POST.

Maquoketa, Ia.

COMMENTS ON THE LESSON

We have printed this month a number of articles from students in the Postgraduate

Course, giving comments on the lessons. Some of these are general in character, others definite and detailed, and the lessons reviewed date back to Number One. We are glad to have these articles, and we hope that those published this month will stimulate others to "go and do likewise." Remember, however, that the space at our disposal for this part of the work is very small; therefore, make your points in the fewest possible words, but be lucid. We want discussion, and we want to give everyone a hearing.

There is still plenty of time for new students to enroll. Come in as soon as you can, and take up the back lessons as you find leisure. You can go right ahead with the current lessons without delay. The first three lessons have been reprinted in pamphlet form and will be supplied free to any subscriber.

A Question Box.—One of our students suggests that it would be a good plan to open a "Question Box," where everyone could come with queries on the lessons. This would undoubtedly lead to discussion and greater definiteness of statement. Next month, therefore, we will open the "Question Box." The queries will be signed by initials only, so that the identity of the questioner will be concealed, this permitting larger latitude to the questioner. Write your query on a separate sheet of paper, so that it can be readily separated from your answers and be given immediate consideration.

Variation in Dosage.—Dr. Jas. A. DeMoss, Thayer, Kansas, answers this question as follows: "Our dosage can never be uniform, in administering remedies to our patients, for obvious reasons. Constitutions, disease conditions and symptomatology are never identical in any two cases. Each day, to the general practitioner, has its strangeness, its surprises, its victories easily won and its battles hard contested. The ammunition must vary; not over charge, not under charge, nor discharge without reason, and judgment for one's aim. Our patients differ in age, in weight, in temperament, in drug toleration, in idiosyncrasies, in systemic conditions, in eliminative processes, in locality, in personal habits, in racial dis-

tinctions, in sex consideration, in powers of digestion and assimilation, and in many, many ways which demand a careful consideration in safe and effective quantities in drug indication." This seems pretty well to answer the question, in epitome.

How Drugs Taken by Mouth Get Into Circulation.—Dr. L. H. Zeuch, of Wheatfield, Indiana, answers this question as follows: "Direct, through osmosis from the mucous membrane in the mouth. Direct, through stomach and intestinal wall; absorption through the portal circulation; absorption through lacteals and thoracic duct. Through cell osmosis, selective (Waugh)."

Why the Alimentary Canal Should be Cleaned out First to Secure Best Drug-Action.—We should be inclined to give these three reasons: (1) Because a clean mucosa is a more actively functioning one, and absorbs the medicine more readily; (2) because "cleaning out" removes a lot of poisonous waste, from the intestines whose absorption adds to the intensity of the disease-process; (3) because proper catharsis serves as a "drain" to the body, carrying off a certain amount of the poisons which have accumulated in the blood and tissues, this favoring healthy nutritional processes. The nerve-centers being poisoned, react more sluggishly to normal stimuli, thus vitiating all the vital functions; removal of the poisons favors more healthy nerve-reactions. Dr. Lucius H. Zeuch, Wheatfield, Indiana, says that "osmosis is favored by abstracting fluids from the intestinal cells (as in the hydragog action of salines) rendering them eager to take up solutions." Dr. J. H. Varnum, Benton Ridge, Ohio, says: "The action of the liver is also important and must be considered when medicines are given by the stomach. Any food or drug absorbed by the stomach must pass through the liver, and this organ has the property not only of turning back food or drugs that are likely to be injurious to the body but it may even destroy them. Many poisons absorbed by the stomach and blood-vessels of the intestines are carried to the liver and excreted

by that organ. They are poured with the bile into the duodenum, and thence again absorbed. Hence it is always advisable to cleanse thoroughly the intestinal tract, and to see that the liver is active, so that absorption may take place as desired."

Advantages of Active-Principle Therapy.—These are clearly stated by Dr. A. M. Janeway, Knoxville, Tennessee: "I understand active-principle therapy to be the use of the active principles in small doses frequently repeated. By using active-principle therapy we can administer the strongest drugs at any age, both young and old, without any bad effects. The advantages of active-principle therapy are as follows: Scientific, efficient, portable, promptly absorbed, easy to administer, unimpaired by age, and if in search for causes of failure the inertness of the drug is not to be considered. By using the active principles in granule form, the physician is able to carry a very large number of doses in a medium-sized case. I have a medium-sized case that will hold 30,000 doses of the granules. When we use the active principles we know what effect they will produce, before we administer them. The active-principle-man carries his remedies with him, as a rule, and when he goes to the bedside he doesn't have to write a prescription and send it to the drugstore, the patient being dead perhaps or beyond human help before he receives the drugs from the drugstore. My motto is: 'Physician, carry your healing paraphernalia with you.' The physician should keep a full supply of drugs or as many as possible."

Abortion of Acute Disease.—Says Dr. J. H. Varnum, Benton Ridge, Ohio: "One of the certain things in practice is that acute disease can be aborted. I know this to be a fact because I see it done every day, notwithstanding the fact that many so-called authorities hold to the contrary. Of course the disease must be taken at the very onset if we expect to abort it. In general this result may be secured by first thoroughly cleansing the intestinal canal and rendering it and its contents as nearly aseptic as possible. Equalize the circulation as quickly as possible. In general these steps will clear

up at least 75 percent of all conditions coming to me for treatment without development of any more serious disease. After pathological and inflammatory changes have taken place such pleasing results cannot be secured. I believe pneumonia can be aborted by clearing congested conditions before consolidation takes place. Many of the continued fevers, too, are aborted by following in this general line. These results I produce more easily by dosimetry than other methods."

Idiosyncrasy.—The sentiment of the majority of the students seems to be that what we call "idiosyncrasy" is a cover for our ignorance concerning the action of remedies and the conditions which influence them. A number of cases are cited to show who believe they cannot take certain remedies in the majority of instances can do this, provided a little tact is used in their administration. We should be glad to have a series of reports of genuine idiosyncrasy to be published in these columns.

The following, by Dr. H. K. Shoemaker, of Flat Rock, Ohio, is of interest: "Every physician of experience knows that there are persons who react in an unusual way to drug treatment. To explain these cases is often, indeed usually, impossible and we hide our ignorance behind a long name—'idiosyncrasy.' A few weeks ago a mother, through mistake, gave her daughter, a weak, anemic girl of sixteen years, five tablets of H-M-C, No. 2, during a period of about eight hours. There was no appreciable effect of this powerful preparation, and why was impossible for me to discern."

Synergistic and Antagonistic Medication.—Dr. L. N. Brainerd, Alma, Michigan, writes: "The diuretic action of acetate of potassium is materially helped by digitalis. The anesthetic effect of chloroform is materially helped by the previous ingestion of morphine. The conjoined use of cimicifuga and gelsemium in neuralgia and in myalgia is of greater value than either singly. As antagonists we may mention strychnine and aconitine in collapse, or

ergot and veratrine in pulmonary, intestinal or renal hemorrhage."

Dr. Lucius H. Zeuch, Wheatfield, Indiana, cites a very interesting case:

"An epileptic (nocturnal) was troubled with insomnia, which was only partially relieved by 15 grains of combined bromides at bedtime. Other hypnotics had a bad effect on him. I gave him a hypodermic syringe of a solution of one part thiosinamin in twenty-five parts distilled water, every night. He also takes the bromides. The result is, he sleeps very soundly and has had only one attack of the epileptic seizures in four months, and that was due to his having lapsed in the care of his bowels. His epilepsy is acquired and I gave the thiosinamin with the hope that a general fibrosis might have caused the late appearance of his disease. It certainly aids in relieving his insomnia, if it does not help his epilepsy. A notable effect of the injection of thiosinamin is that he is unable to smoke for three or four hours after the injection without causing vomiting."

Remedies Which Act Quickly.—The following list is given by Dr. I. N. Brainerd, Alma, Michigan: "Ammonia water, already in solution, acts well in three minutes. Glonoin acts almost instantly, a number say; amyl nitrite in less time, and is less permanent. Morphine hypodermically acts in a few minutes. Aconitine will produce a tingling in my fauces in one minute. The effects of the ammonia last for say fifteen minutes. The action of glonoin disappears wholly in an hour; amyl nitrite not more than ten or fifteen minutes; morphine two hours; aconitine, wholly in an hour. These are from single moderate doses. Aloin acts in twelve hours, and its effects last an hour longer. Digitalin acts in an hour and lasts for six hours. Sulphonal acts in five hours, and lasts eight or ten hours longer. Lead acts (toxic action) after months of continuous ingestion, and lasts for months more unless elimination be expedited by magnesia. Phosphorus (in toxic doses) lasts for days before death ensues, or months with its fatty degeneration."

Abortion of Acute Disease.—"I see

very little pneumonia, but congestion of lungs is not uncommon. These cases are usually convalescent in twenty-four to forty-eight hours. Whether or not the cases of congestion would go on to pneumonia if untreated I know not. Fully developed pneumonia I am usually able to control in three or four days. Barring senile pneumonia, I have had but one case during fourteen years' practice. Treatment: Aconitine, digitalin, veratrine, thorough cleansing of alimentary tract, nuclein."

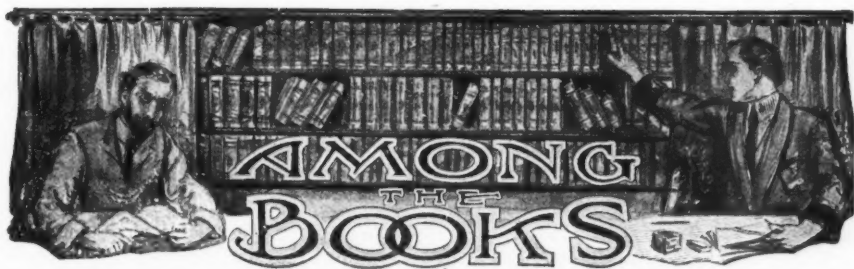
Let us have a large number of short reports, similar to this, telling character of cases, number of cases treated, basis of diagnosis, treatment followed and results. Make them concise, accurate and "snappy."

EXAMINATION QUESTIONS

1. What six things may be learned by studying the expression of the face? What facial signs point toward cerebral excitation? the apoplectic condition? acute inflammation?
2. What are the facial signs of pulmonary disease? of intestinal or abdominal disease? disease of the female reproductive organs?
3. What is the significance of the full, broad tongue? of the shrunken tongue? of the fissured tongue? What condition of the tongue suggests the use of the alkalis and what acids?
4. Why is active-principle therapy more scientific than the use of galenicals? Of what importance is it that remedies should be palatable?
5. Tell something of the alkaloids of ipecac and their action.
6. What is the primary effect of nonreactive applications of heat and how does it differ from the secondary effect of reactive applications of cold? When is the continuous application to be preferred? What is its effect upon metabolism, skin function and germ life?
7. Describe the results following the use of nonreactive applications of cold. Is the cold-bath treatment of heatstroke rational? Why not?
8. What is the real action of applications of indifferent temperature, and how is it explained?

RESEARCH QUESTIONS

1. Give a brief description of the relation of the eyes to disease and to drug-action.
2. What are the indications for treatment in a typical case of apoplexy and how would you meet them?
3. Write briefly of the disease-indications of the tongue and what remedies should be given to meet them.
4. Describe the skin-applications to be employed for the relief of diseases due to waste retention (muscular rheumatism for example) and tell how they act.
5. Give a complete rational outline for the treatment of heatstroke—employing both physical and medicinal remedies.



FLOWER'S "OPERATING ROOM AND PATIENT"

The Operating Room and the Patient. By Russell T. Flower of the Brooklyn Post-graduate Medical School. Second edition, revised and enlarged. Philadelphia and London: W. B. Saunders Company. 1907. Price, \$2.00.

In our review of the first edition of this book in *THE CLINIC*, of 1906, page 974, we expressed ourselves strongly as to the need of proper preparation of room, instruments, operator and operated, nurses, assistants, etc., without which even the achievements of modern surgery in asepsis and antisepsis may prove futile. All these have to be known and learned, and it is not at all a matter of supererogation to have special monographs on these points. Even our best books on general surgery are not over-full with all there is needed to be known on this point from theory and experience. It is therefore a real need well supplied that this second edition of the "Operating Room and the Patient" gives both to specialist and general practitioner. The additional chapters of this second edition on general considerations in the postoperative treatment are most valuable.

STELWAGON'S "DISEASES OF THE SKIN"

Diseases of the Skin. A Treatise for the Use of Advanced Students and Practitioners. By H. W. Stelwagon, M. D., Ph. D., Fifth edition, thoroughly revised. With 267 illustrations and 34 full-page colored and half-tone plates. Philadelphia and London:

The W. B. Saunders Company. 1907. Price, \$6.00.

The book before us contains 1124 octavo pages of text. It is reliable in its teaching, its author being neither specially neophilic nor paleophobic. The author is a practical dermatologist of vast experience, and as a teacher he knows what his pupils in the higher grades require. In every respect the book is to be recommended as the summing up of our dermatologic knowledge up to date.

OHIO HEALTH BOARD REPORT

We are in receipt of the Annual Report of the State Board of Health of Ohio for the year 1906. There is much available material in hygiene and statistics in reports that have such sources as the Ohio Board and its Secretary.

SALEEBY'S "CONQUEST OF CANCER"

The Conquest of Cancer. A plan of campaign; being an account of the principles and practice hitherto of the treatment of malignant growths by specific or cancer-toxic ferments. By C. W. Saleeby, M. D. New York: Frederick A. Stokes Company. Price \$1.75.

This book puts us under the obligation of reading it. Cancer is at the present studied, and this means treated also, on new chemico-vital lines. The author is not a practising but an inquiring physician, and he is therefore free from adhering irrevocably to *ex cathedra dicta*. In a certain sense the author is extra cathedral. The burden

of the author's theme is the treatment of cancer with trypsin, and on this point he is thoroughly elementary and very readable. We consider the book, as we said, obligatory on any physician who wishes to know the last our workers have to say about cancer.

SCHIMMEL'S "REPORT"

Semiannual Report of Schimmel & Company on Essential Oils. London and New York. October, 1907.

There is valuable information along these lines in the brochure which is of scientific as well as commercial interest.

"INTERNATIONAL CLINICS"

International Clinics. A Quarterly by the leading members of the medical profession throughout the world. Vol. IV, seventeenth series, 1907. Philadelphia and London: J. B. Lippincott Company. Price \$2.50.

This volume has valuable articles in the following departments: Treatment, Medicine, Surgery, Gynecology, Genitourinary Diseases, Orthopedics, Neurology, Otology. The latter article gives most valuable information about that marvelous remedy, thiosinamin. It is within the range of possibility that some of our thousands of readers may, after reading these lines, send for the Quarterly, apply the teaching of the article referred to intelligently and get a lift in the "labyrinthine" difficulties of otology for which he may be thankful the rest of his life.

GILLIAM'S "GYNECOLOGY"

Practical Gynecology. A Textbook for Practitioners and Students. By D. Tod Gilliam, Emeritus Professor of Gynecology in Starling Medical College. Second revised edition. F. A. Davis Company, publishers. 1907. Price \$4.50.

There is a good deal of good to be said about this book. Its claim to practicability is not a mere hackneyed expression. The author writes as a teacher who knows the needs of the members of his classes and who

instructs them for their life's work. He eschews all that might be called more ornamental than needful for the practitioner to know, and in what is needful to know in such diseases of women that are not peculiar to them the author thought best not to send off his readers to other books but treats of them in proper detail. This is thorough teaching to be grateful for. One thing more also the credit of this book is the Index of Regional Symptoms. Illustrations and mechanical make-up and price, too, of the book are very satisfactory.

BAUMANN'S "GONORRHEA"

Gonorrhea, Its Diagnosis and Treatment. By Fred Baumann, Ph. D., M. D. Fifty-two illustrations in the text. New York and London: D. Appleton & Company. 1908. Price \$1.50.

An excellent monograph, giving the most modern, rational, scientific and successful treatment of the disease which is claimed at the present to be more baneful than syphilis. It is a book of only 200 pages, well written and illustrated. Whether a practising physician may be willing or not to exchange his accustomed treatment for something new, an educated physician is in duty bound to know at least the latest which researches have discovered in medicine. And this little book is well calculated to give full information about the latest on gonorrhea.

TALBOT'S "DEVELOPMENTAL PATHOLOGY"

Developmental Pathology. By Eugene S. Talbot, D. D. S., M. D. Published by the author. For sale by The Clinic Publishing Company, Chicago. Price \$2.50.

This is a collection of essays published at various times in various medical journals illustrating, discussing and explaining the processes of growth and degeneration of the human body, especially of the head, face, nose, jaws and teeth. The author is an original thinker and a thorough-going evolutionist, and he explains pathology by the

evolution, or development, of degeneration in the struggle for existence among the organs of the human body induced by its environment. The author professes to have worked in these lines of research for the last thirty years. The form of the book in separate essays as they appeared in various journals is not only no objection to but even enhances the value of the book. Nascent medicaments are often more effective than finished products.

KEYES'S "SYPHILIS"

Syphilis. A Treatise for Practitioners. By Edward L. Keyes, Jr., M. D., Ph. D., of the New York Polyclinic. With 69 illustrations in the text and 9 plates, 7 colored. New York and London: D. Appleton & Company, 1908. Price \$5.00.

Syphilization is perhaps coextensive with civilization. Nor is it always the directly infected individual that is alone affected. No! There are parents, themselves born of noninfected parents who brought up a family of sons and daughters in purity and health. Into such a family a man infected from another infected man enters, courts one of the girls, marries her, begets children, and jeopardizes the health, the purity and the peace of at least two generations—and all this from sheer ignorance. This is the devastating story of syphilis, to fight which prophylactically men and women of influence should be banded together. But, alas! at the present time ignorance and proud conceit stand opposed to needed publicity of discussion and instruction. The clerical profession are the most mistaken on the subject of sexology, in that they imagine a purity to prevail which does not and cannot exist as long as the increasing cost of living necessarily decreases marriages. And yet, human nature and woman-nature remain the same in the healthy appetites of life, facts from which, ostrich-like, they hide their faces. And some, though few, of the medical profession, too, are in the way of prophylactic reforms. All there is left to be done is the thorough study of the evil and how to cure it, and one can only hope and

pray for the time when a merciful High Power will eject darkness from the place of light and ignorance from pretentious seats of instruction.

And as for instruction from tested theory and immense records from private practice followed studiously for the term of two generations, this book by the son of the elder Keyes stands, we are inclined to think, without a rival. But it is to be remembered that, as the title reads, the book is a treatise for practitioners, yes, even for those who may have practised hitherto under false theories and unjustified assumptions. But the book is not for elementary students. That it is the latest both scientifically and statistically need hardly be said. We thank the author for his successful effort and wish him continuous prosperity in his well-chosen career.

WINSLOW'S "CLEAN MILK"

Clean Milk. The Production and Handling of It. By Kenelm Winslow, M. D., M. D. V., B. A. L. (Harv.). New York: William R. Jenkins Company. 1907. Price \$2.50.

This book will give ample and needed information to the farmer and the town and city milk dealer, as well as to the doctor, who is expected to be expert in hygiene. It is beautifully gotten up as to print, illustrations and binding.

BORDMAN'S "DISEASES OF THE BREAST"

Diseases of the Breast, with Special Reference to Cancer. By William L. Bordman, M. D., LL. D., of the Medico-Chirurgical College of Philadelphia. Philadelphia: P. Blakiston's Son & Company. 1908. Price \$4.00.

The thoroughness of research to which our professional workers are offering their time and unwearied exertions, despite the frequent ingratitude which they meet with and the slander cast upon them by medical and religious quacks, demands monographs on the diseases of special organs and parts

of the body. Monographs are needed also for the writers of general manuals and textbooks. When a disease under treatment gives us sleepless nights and anxious days and we wish to know all that is known about it, we grasp after a special monograph. And so, if the reader has, or expects to have, a mammary case entrusted to him, he will consult the best interests of himself as well as his patient by making a thorough study of this book.

**BEZOLD AND SIEBENMANN'S
"OTOLOGY"**

Otology. A Textbook by Bezold and Siebenmann. Translated by Dr. J. Holinger, of Chicago. Published by E. H. Colegrove, Company Chicago. 1908. Price \$3.50.

The studious American physician and student will find in these thirty-two lectures many a new idea in every department of otology which will profit him. The original authors are specialists of high reputation in Europe for scientific accuracy and practical success. And the American translator did his work, it seems to us, *con amore*, for it is excellently done. The publishers also did a fine work by this in every way valuable book.

"INTERNATIONAL MEDICAL ANNUAL"

The International Medical Annual. A Year Book of Treatment and Practitioner's Index. 1908. Twenty-sixth year. New York: E. B. Treat & Company. Price \$3.50.

We have had the pleasure of reviewing this Annual for a number of years and never had occasion of speaking anything but in praise of it, and after careful examination of this year's volume we are again glad to recommend it to our readers. We have in this volume a concise but not garbled statement of all the advances made in medical science and practice during the year 1907. If anything is omitted here it is because nothing of interest was done in that thing during the last year. But you are sure

to find it in an annual of a year or two previous. Indeed, we find the set of annuals back to 1893 in our library to be a most efficient historical record of medical items in better detail than medical histories can or do give.

MILLER'S "CORRECTION OF FEATURAL IMPERFECTIONS"

The Correction of Featural Imperfections. By Chas. C. Miller. Published by the Author. Chicago. Price \$1.50.

The book might be denominated "Surgical Cosmetics," but whatever be the name, the subject is important and difficult and requires as much practice and skill as major surgery, and the general practitioner had better be cautious not to make blunders at the start of his practice. Let him be advised to read this little book twice.

HORWITZ'S "COMPEND OF SURGERY"

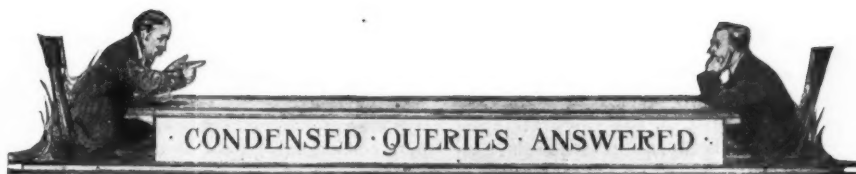
Compend of Surgery for Students and Physicians, Including Minor Surgery and Bandaging. By O. Horwitz, B. S., M. D. Sixth edition, revised and enlarged and largely illustrated, and many formulas given. Philadelphia: P. Blakiston's Son & Company. 1907. Price \$1.00.

This is one of the best compends for self and reciprocal rehearsals.

"CONFESSIO MEDICI"

Published by The Macmillan Company, New York. Author's name not given. If people find fault with us we should remember that spots are more conspicuously seen on a white than on a black sheet, and the higher the tree the more wind it catches. Wherefore, dear reader, when you want to know in a chit-chatty, entertaining way about our profession, get this book and be edified. Price \$1.25.

We are in receipt of The Seventh Annual Report of the New York State Hospital for the Care of Crippled and Deformed Children, of West Haverstraw, N. Y.



PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5287.—In the April number of *CLINICAL MEDICINE*, Query 5287, R. W. S., of Ohio, describes a form of pruritus, or itch, which seems to be hard to get rid of. I have met with this trouble and know how hard it is to cure. I will suggest that this trouble is a parasitic disease and that it has been imported to our country from Cuba or some foreign country by our boys who were in the Spanish-American war. Here is the remedy that I have never seen fail to cure, if properly used.

Take common poke-root and boil a liberal supply of the fresh root. Add to this a large cake of home-made lye soap. Let the patient strip and use a washtub to bathe in. Take a rag and use plenty of soap. Bathe all over head and ears, rubbing well with the rag. Old standing cases will have to have two or four of these baths, about three days apart; recent cases are cured by one bath. Care should be taken not to neglect the head, beard and eyebrows, in fact, the application must be thorough to be effectual. It is not very painful, as one would imagine. I have had it used on small children without complaint. After using these baths the patient will complain a few days, but gradually they get well.

Some physicians make light of this trouble, but let me tell you it is a serious matter with those who have it. There is no medical literature that I have seen that treats of it. Poke-root is the only thing that I have ever seen that will cure. Mercurial preparations are useless, so far as curing the disease is concerned. Let the Ohio brother try

this remedy and report the result through *CLINICAL MEDICINE*.

F. W. OWEN.

Lamasco, Tex.

ANSWER TO QUERY 5287.—R. W. S., Ohio, undoubtedly has a case of too much *bug* to deal with. I have treated hundreds of these cases in the last ten years. If it were a case due to nervous causes it would not become epidemic. I have seen whole neighborhoods affected with this malady and am successfully treating cases now where the disease has spread through a glass factory where 150 people work.

Treatment: First have the patient cleanse his body with some good vegetable soap; dry, and then let him use a strong sulphur ointment, twice daily. Give internally 1-4 to 1-2 grain calcium sulphide every two hours or enough for thorough saturation; at the same time giving one tablet each night containing 1-4 grain each aloin, cascarn and podophyllin. Continue persistently and your pruritus hiemalis, prairie-itch or what not will vanish.

J. HAROLD LAIL.

Anderson, Ind.

ANSWER TO QUERY 5269.—Noticing Query No. 5269 from S. C. C., New York, I beg to report a freak case I had some time ago. Patient had been in labor some time. It was very tedious, so I helped her, and upon reexamining I found a shoulder-presentation with one arm protruding through the vulva. The shoulder was well jammed and nothing

seemed to remain but to perform version; so I proceeded to anesthetize. Ready for work, I placed the patient crosswise on the bed and raised the sheets when, to my utter astonishment, I saw the child and placenta lying between the patient's legs. The child had been dead for perhaps a week. This occurs once in a few thousand cases, so I am one of the lucky ones.

J. A. POIRIER.

Forest Lake, Minn.

ANSWER TO QUERY 5287.—I have noticed the article by R. W. S., Ohio, Query 5287, in the April issue. For several years the same pruritus gave me a great deal of trouble. We had a number of cases here, and many remedies, both internal and external, were tried. I could get very little from the books and for a long time treatment was unsatisfactory. Whether it be "pruritus hiemalis" or not, it is very decidedly a pruritus, which is its chief symptom.

R. W. S. describes it exactly as it was manifested in the cases I met with. I have never failed in a single case with the following treatment:

Bathe and apply night and morning for four consecutive days this ointment:

Precipitated sulphur.....oz. 1
Acetaniliddrs. 4
Balsam peru.....ozs. 1 1-2
Vaselineozs. 4

After this bathe again and be scrupulously careful in changing every stitch of clothing and bed clothing which have come in contact with the person before. This is of great importance. So far as constitutional treatment is concerned none is needed, unless there are special indications for such, except the eliminant is always beneficial. Will you ask R. W. S. if he will take time to write me about results?

O. W. HUBBARD.

Batavia, Ill.

QUERIES

QUERY 5292.—"Beside Urinary Analysis."—R. B. V., Arkansas, wishes to know what is the best thing for examining the urine, to use in the office or carry about. We will say that compact thoroughly reliable urinary test cases can be obtained from Betz, Hammond, Ind.; Sharp and Smith, Chicago, or any other large instrument house; a pocket case containing everything requisite for ordinary examination—urinometer, test papers, test powders for sugar, albumin, etc., together with alcohol lamp, etc., costs only very little, and with such a case and Purdy's work on "Urinary Analysis" you may feel yourself thoroughly equipped.

QUERY 5293.—"What Kills His Patients?"—M. C. R., Arkansas, in a recent letter asks for diagnosis and treatment of a peculiar disorder which resists his best efforts. He has treated a number of patients in the last twenty years (all infants or children) and they all die regardless of age. He gives these symptoms: Attack

begins with light fever in remittent form, growing a little worse for a few days, when it may get very light and almost disappear, but the child begins to jerk on one side with one hand and foot, shows signs of paralysis, breathing hard, the head not drawn back any. By the seventh or eighth day hand and foot jerks very badly, and a little later convulsions set in and the patient dies.

It would be audacious to attempt a diagnosis from the very limited clinical facts furnished. It may be a form of meningitis, or it may be a peculiar type of autotoxemia. You do not say how high the fever runs, nor give us any idea as to the action of the bowels, condition of skin, presence or non-existence of dermal eruption, dilation or contraction of pupil, wasting of body, etc. Give us a clear idea of the progress of the disease and shed some light upon the surroundings of the patients. Also state whether birth was normal or instrumental or prolonged in any way.

Let us suggest, Doctor, that you thoroughly cleanse the patient's bowels with enemata of decinormal salt solution at body-temperature. Apply to the spine compresses wrung out of hot solution of epsom salt; give small doses of a sweetened solution of magnesium sulphate hourly after first exhibiting calomel, gr. 1-10, and podophyllin, gr. 1-67, half hourly for four doses. Push nuclein morning, noon and night six drops under the tongue and give a half teaspoonful of the following solutions alternately every two hours. Solution No. 1: Defervescent compound, 4 granules; water, 10 teaspoonfuls. Solution No. 2: Cicutine, 3 granules; gelseminine, 3 granules; water, 10 teaspoonfuls. Nourish with simple beef broth, albumen water, barley water, or a little milk and barley water. If necessary apply blisters to the base of the skull and then flying blisters the size of a quarter up and down the spine. To control the fever you have to give larger quantities of aconitine, digitalin and veratrine, and if septic conditions of the intestine become evident give the sulphocarbols in solution to effect. Lumbar puncture and the injection of a creolin solution would suggest itself, and the use of colloidal silver might prove efficacious. Read Candler's description of *Mountain Fever* in "Every-Day Diseases of Children."

QUERY 5294.—"Atrophia Cutis."—W. M. M., Virginia, asks that we print this query for the readers of the journal to answer, or to answer it ourselves. The doctor adds: "This question is of the greatest importance as the young girl is growing weaker all the time and I am afraid may not live another year. I want to say that I have consulted everything I could find in medical literature, having once sent to the Surgeon General's Library for the report of a similar case. No treatment seems to avail. I have asked eminent men in the profession from other states about the case, but they know of nothing that will give the desired relief to the patient. This is my case:

"Atrophy of the skin (atrophic lines and spots) following severe case of typhoid fever, four months' duration, in a girl 18 years

old. She was 14 years old at the time of the fever. The cracking of the skin came on about one year after the fever and has continued, increasing in severity, until the present. The knees have the largest cracks, there being several transverse ones paralleling each other across the knees, though there are also lines and spots (cracks) on other parts of the body, notably on the breast, hips, back, along the spine, etc. So also many fine lines are found on the backs of the hands and feet. At the root of the spine, between the buttocks, is a considerable protrusion, or swelling, seemingly of the bone (coccyx), as it is hard to the touch. All of the lines and spots, also the lump at the end of the spine mentioned, are whitish in appearance, even glistening, and wrinkled or shrivelled, sometimes they are pink or purplish in color and intensely painful, so tender in fact that the mere weight of the bed clothing causes her to cry out in agony. There is extreme nervousness. A temperature of about 100° or 101°F. is pretty generally maintained; nausea, sometimes vomiting, is most all the time present; food is daily rejected, and not sufficient nourishment is retained to sustain life indefinitely. There is great danger of starvation. The girl is cheerful and hopeful withal, and patient to a wonderful degree. What can be done?"

This hardly seems to be such a very obscure case and we can only think that the "eminent men" and people at the Surgeon General's office failed to understand your description. From the data presented it quite evidently is one of those cases of atrophia cutis presenting striæ atrophicæ which sometimes appear to touch the borderland of scleroderma and, again, present (late) the peculiarities of morpheæ. Stelwagon gives us a fair clinical picture and under the head of striæ et maculæ atrophicæ notes a case which presented "striæ upon the abdomen after typhoid fever where there had been marked emaciation."

The "typhoid spine" we are all familiar with, and the various neuroses which may follow this disease are yet imperfectly studied or even realized. You have to deal, of course, with a trophoneurosis, and the ac-

companied neuritis accounts for the occasional pain experienced. Auboger, Bouchard, and Manouvrier observe that "linear atrophy (of the skin) developing in (or after) typhoid is of grave import. In a case reported by Bronson (see Stelwagon, p. 585) occasional shooting pains were noted and it is observed that the lower extremities—especially the knees—suffer particularly. Crocker sees a marked resemblance to scleroderma in these cases of atrophica cutis, and several cases are on record of patients sixteen or over who presented similar symptoms after "an acute fever." See Crocker, Stelwagon, etc.

More than one recent writer upon "Practice" calls attention to the peculiar changes which may follow typhoid. French's "Practice" (3rd edition) says, "atrophic lines sometimes appear after fever (typhoid) probably as the result of neuritis."

Granular fatty and hyaline degeneration often occur after severe attacks, and skin-muscles and even bones suffer markedly. The typhoid bacillus has been found by Keen in several cases of osteitis and osteomyelitis, and it is a question whether in these dermal disorders we may not have a distinct (but modified) infection by the bacillus typhosus. However, we have to deal with (1) lowered resistance; (2) perverted metabolism; (3) tissue degeneration, and possibly, infection.

Treatment is clearly indicated. Locally, washing with tar or sulphur soap, massage with a simple unguent and frequent application of a mild epsom-salt solution on compresses. Goose grease (sterile) might prove beneficial. Internally eliminants, alterative tonics and reconstructants. We should push small doses of calomel with iridin and xanthoxylin, hourly every other night, say for four doses, and give a weak saline laxative next morning. Beef juice, fruit juices, butter-milk, junket, the prepared blood-foods (sanguiferin, somatose, etc.) should be given as well as whole-wheat and oatmeal bread or biscuit. A good digestive formula, one before meals, and iron, quinine and strychnine arsenates after food will suggest themselves. After a week give arsenic iodide,

gr. 1-67, for one week, then repeat the arsenates. If the stomach is rebellious at first feed per rectum.

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QUERY 5295.—"The Positive Active Principle and Uncertain Tincture."—M. S., Missouri, writes as follows: "I am a 'green' alkaloidist, and as such am at a loss to know how to convert a dose of the ordinary galanics, such as tinctures, fluid extracts, into an alkaloidal dose. For example, I find a good prescription by Holt for vesical spasm containing tincture of hyoscyamus. I should like to use this same prescription but substitute hyoscyamine in it. How much should I use? There must be a rule which I should like to learn."

A certain quantity of tincture or fluid extract of hyoscyamus may contain 1-1000 grain of hyoscyamine or one-half that quantity or practically none at all. Doctor, learn to "think in alkaloids, basing your calculations upon this rule: "the smallest known-to-be effective dose repeated at intervals to effect—remedial or physiological." The alkaloidal granule represents, in the majority of instances, this "smallest known-to-be-effective dose" for an adult, and you would therefore add to each dose of your preparation 1-500 to 1-250-grain of hyoscyamine according to frequency of administration and effect you desire to procure.

For vesical spasm you can find nothing better than the following formula: Glonoin, gr. 1-250; hyoscyamine, gr. 1-500; strychnine arsenate, gr. 1-134. Or a half-strength H-M-C tablet. Of course it is necessary to find out just what causes the spasm, then remedy the condition. There can be no rule based upon unknown foundation, and the active principle contained in the common tincture, fluid extract, etc., is an unknown quantity unless you use a standardized preparation. When you do this you will find the amount of active principle supposed to be present in each dram stated upon the label.

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QUERY 5296.—"Simple Auto-intoxication."—H. J. C. M., Michigan, is interested in us, our drugs, and our journal. He read the

latter and looks for it with anticipation from month to month. He also uses the alkaloïds more and more as he learns their use. He was almost a "nihilist" (therapeutically) until he began to use aconitine as we advise. "Formerly I used aconite," he writes, "but I never got satisfactory results. My doses are larger and more frequently given now—and I get results. I don't use morphine for gallstones either. I used to, like the other fellow, but now, with enough hyoscyamine and glonoin and a little strychnine, accomplish more, give better satisfaction to my patient, and feel safer myself, for I have had a few cases of morphine poisoning on my hands, the result of giving it to relieve the pains of gallstones." He continues:

"I wish you would suggest a line of treatment for the following case: Male, occupation lawyer; age 30; married eight years; weight 133 pounds, stripped; height 6 feet 1 7-8 inches; blue eyes, fair complexion, jovial disposition, small-boned, myopic and wears glasses, sleeps well and is not nervous; keeps regular hours, does not use intoxicants nor tea and coffee. Heart, lungs and kidneys normal; no albumen. Complaints of cold hands and feet and looks pale and somewhat anemic. Has bad breath at times, tongue coated at base with a substance emitting a fecal odor if rubbed between fingers. This condition is almost constant and has been so about as long as patient can remember. Tonsils chronically enlarged and throat generally red and catarrhal. Complaints of indigestion. Never has pain in gastric region, sometimes weight-like feeling, especially after a full meal of meat, pork in particular; cabbage, sauerkraut, pastry and bread always distress him. Has constipation, or at least is costive. Has to take 'something' all the time. Has been a furious masturbator from tenth to twelfth year, which practice was kept up until he married. Masturbated only occasionally since he was married. Has practically abandoned the habit these past six months. Has intercourse about twice weekly. The man's desire is to take on flesh, get rid of foul breath and fix up his stomach. I put him

on tonics, laxatives, antifermentatives, etc. I have had him enter the gymnasium for developmental exercise, which he patronizes about thrice weekly for one hour, indulging most in the mild exercises of hand-ball. Besides this he does plenty out-door walking also."

Thank you, Doctor, for your pleasant words. We never blame any man who depends on the galenics for being a therapeutic nihilist. Many of our friends have had success, like yourself, in the treatment of the paroxysms of gallstones, but since the hyoscine-morphine-cactin compound came in, the latter threatens to supersede completely the combination of hyoscyne, glonoin and strychnine.

The man whose case you describe suffers from his retained waste, and in spite of the excellent treatment you gave him his bowels have never been completely emptied. Let him have podophyllotoxin at bedtime and a full dose of saline laxative the next morning, and twice a week flush his colon with two or three quarts, or more, of warm water containing a teaspoonful of baking soda to each quart. The sulphocarbolates, after meals, "to effect." Of course as long as foul-smelling passages are noted, the bowel is *not* clean or empty. The best exercise for him undoubtedly would be sawing wood.

QUERY 5297.—"Acetanilid, Antipyrin, Phenacetin: Their Standing and Use."—J. A. B., of Arkansas, asks: "Was acetanilid ever a proprietary remedy? Since the patent on phenacetin has expired can anyone make it or is the process of manufacture a secret? When the patent on antipyrin expires can anyone make it or will the process of manufacture be secret? Which drug, acetanilid, phenacetin or antipyrin, is the most powerful diaphoretic, which one is the most powerful antipyretic, which the most powerful antispasmodic, which the most powerful analgesic, which the most powerful hypnotic, which the most depressing to the heart, which the most toxic, which the most powerful antiseptic, which is quickest in action, which is most lasting in action,

and which one of the other drugs named is second to each principal one?"

Frankly, we do not feel able to answer every one of these queries, for the different drugs exert different influences under differing conditions and in various individuals. Not one of the "coal tars" named exerts a true hypnotic effect—save as it does so by relieving pain. Acetanilid (formerly "antifebrin"—a proprietary) may be made by any manufacturing chemist—is so made. For details see page 3, U. S. P. For action, etc., see Hare, "Practical Therapeutics," p. 53. Antipyrin (antipyrinum, U. S. P.; phenazonum, B. P.) is also official and nonsecret. For action, etc., see Hare, p. 93 (or other modern textbooks). A study of the action of these drugs will cause you to realize that the most "powerful diaphoretic" is also the *most toxic*, since it depends for its action upon the presence of carbonic acid in the medulla. All three drugs are "general anodynes"; acetanilid exerts a slight local analgesic action. It would be impossible to say which one of the trio is "the most powerful" analgesic. Possibly, dose for dose, acetanilid. Phenacetin may be regarded as "a rival of antipyrin in the power to remove pain." (Hare.) Antipyrin is more dangerous (dose for dose) than either of the other two drugs. Phenacetin is a distinct *nervous sedative* and has little or no effect upon the circulation unless given in very large dose. It does not cause diaphoresis as a rule. We should not regard any one drug as possessing marked antiseptic action, barring, perhaps, acetanilid.

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 QUERY 5298.—"A Persistent Hemisphera."—G. L. B., Wisconsin, writes: "As your suggestions have always served me beautifully I would ask treatment for one of my lady patients. She is a decided brunette, age 33, weight 120 pounds, height 5 feet, 4 inches, married 11 years; pregnant once four years ago, aborted at three months. Seventeen years ago she had an attack of typhoid fever, being sick about three months. Since childhood she has been subject to sick-headache at short intervals (generally attributed to sun-exposure), until eight years ago,

when she suffered a severe attack of facial neuralgia lasting about six weeks. This was followed by another form (apparently) of headache which occurs on an average of once in two weeks. These attacks begin as a disturbed feeling in the brain, the least move causing pain likened to a jar, accompanied by a general nervousness. This lasts a few hours and culminates in a concentration of severe pain in the left temple associated with extreme tenderness of the muscles at the back of the neck. Stomach irritability is always present and sometimes vomiting takes place, which however does not relieve headache. These attacks last about twelve hours and leave temple and neck sore to touch. Headaches have occurred most often at or near time of menstruation although they have not been limited to that time. From one week to generally two weeks elapse between two distinct attacks. Urine is normal; pelvic organs in healthy condition; nervous temperament; pulse, 90 sitting, 96 standing; temperature 98.6°F."

We have carefully considered the description of the above case and regret to say that we cannot, with the data at our disposal, arrive at a clear diagnosis and hence are unable to outline a positively remedial treatment. That peculiar condition which is known as "typhoid spine" may have something to do with the periodical headaches here; indeed the neuroses which follow typhoid are legion and present in kaleidoscopic variety. However, we are more than inclined to look upon the hemisphera as due likely to intestinal disorder—autointoxication. There is a headache (due to fermentative conditions with distension of the cecum) which only yields to intestinal antiseptics. The symptoms closely resemble those presented by your patient. Suppose you try a "mixed" treatment. Between the attacks give a good nerve with avenin and scutellarin, also papayotin, ten minutes prior to food, and pancreatin and sodium sulphocarbolate an hour after food. When the attack comes on give promptly blue mass and soda, gr. 1; podophyllotoxin, gr. 1-12; every half hour for six doses, and follow with a saline laxative draught;

then the three sulphocarbulates, gr. 10, every three hours, with hot water. The well-known migraine tablet may be given on beginning blue mass, etc., and another in one hour. Massage over cecal region and an enema are suggested. This will probably suffice. Vibration along spine and over abdomen every two days would prove helpful.

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QUERY 5299.—“Purpura Fulminans?”

J. E. M., New Mexico, reports a most interesting case which merits discussion. The doctor writes: “I was called in consultation with Dr. H. last Friday to see a case of pneumonia. I arrived on the scene about 4 p. m., went in and consulted over the case named, then the doctor called me into another room to see a little two-weeks-old baby that had been ailing a few days, crying at night, cross during the day, etc. Dr. H. had seen the baby the day before, had given a little purgative, I believe, as the bowels had been inclined to be constipated, and some little anodyne to give rest. Friday morning he saw the baby and found from about half way from the knees to above the hips there was a deep red color all the way around. He thought it erysipelas; told them as I was coming he would wait until I came, and we would do the best we could, etc. When I saw it (at 4:30 p. m.) all this red area up to the navel had changed to a dark, deep blue. The temperature was 102° F., same as that morning, the bowels did not seem tight or tympanitic, but belly was round and distended, skin below and above seemed a little yellow but not much more than is often the case in babies of this age. No eruption, no moisture. Baby died at nine p. m.

“Now, gentlemen, what was it? Was it erysipelas, diabetic gangrene, symmetric gangrene, or what? In looking over Stelwagon it seems that it would come nearer coming under the head of symmetric gangrene, Raynaud's disease, than anything else.”

We regret exceedingly that the clinical data is incomplete. We should like to have had the urine examined, mucosa of buccal

and other accessible cavities looked over and stool peculiarities noted.

The highest temperature noted, it seems, was 102° F. The child had “been ailing for a few days, crying and sleepless.” A purgative had been given (we do not know result) and an anodyne (character also unknown). There was “no eruption, no moisture,” and the child died two days after appearance of “red area.”

Erysipelas would hardly present as a red discoloration from half way above knees to above hips and change in twenty-four hours to “a dark, deep blue,” the child's temperature meanwhile being only 103° F. Had the umbilical stump been infected we would not have the discoloration begin “above the knees.” There would be moisture and swelling about the navel. A pin-prick would have (if infected) been easily discoverable, and an erythematous area would have spread therefrom.

Raynaud's disease does not quite coincide, so far as symptomatology goes, with the facts given. Here (Raynaud's or symmetric gangrene) we find the extremities affected; the ear, the toes or tips of fingers. The parts are first cold and pale, then comes redness with swelling and finally either moist or dry gangrene. Mummification or ulceration marks the last stage always; in some instances resolution follows the second stage, but we could not expect this where the involved area is large. Moreover the process in Raynaud's disease is slow and death would hardly follow as early as in this case. Symmetric gangrene is not a disease of infancy either.

We must under the circumstances consider *purpura*. Fulminant purpura might present just such symptoms as those you mention, and the systemic disturbance (of which the purpuric patch is but an evidence) would most likely prove fatal speedily to an infant. There had been, it is evident, abdominal disorder (the doctor gave a purgative and anodyne) and in purpura fulminans gastric and intestinal symptoms always exist. There may have been intestinal hemorrhages but in many severe cases the mucosa does not present hemorrhagic areas.

Marked systemic disturbance, followed by extensive cutaneous lesions on extremities or trunk, collapse and death may be given as a succinct description of one form of this malady. We think it covers your case. Read Stelwagon on the subject. Purpura, as you know, may present in infancy. It is a great pity that you did not hold a post mortem, or at least make a minute examination of the body and excretions. These cases are always of profound interest and a full report of symptoms, treatment and progress of disease helps other men mightily.

Since writing the preceding, we have come across the following: "Little (*British Medical Journal*) reports a series of cases in infants with rapidly fatal termination associated with hemorrhage into the suprarenal capsules. The lesions appear commonly—over trunk and lower extremities. They are first red, then dark-blue in hue, varying greatly in size." The above item appears in the last edition of Hyde & Montgomery, and we think has a direct bearing upon this case.

QUERY 5300.—"Embolism of Left Cerebral Artery." O. K. P., Virginia, asks for diagnosis, prognosis and treatment in a case described as follows: "Mr. G. N., farmer, age 62, weight 230 pounds, family history negative. Patient's history good except treatment about twelve months ago for aortic insufficiency with cardiac dilation. He was taken very suddenly with a spell of coughing and dyspnea about 11 p. m., March 18. His wife, getting out of bed, immediately discovered that he was completely paralyzed on the right side—leg and arm, also considerable tongue involvement. I reached the patient at 4 o'clock the next morning, finding him sitting on the side of his bed and on examination found this group of symptoms: partial hemiplegia, right side; labored breathing, full pulse, wild delirium, articulation defective. No pupillary or tongue symptoms visible. Present condition, April 1: Only slight weakness on affected side, but cannot read or add figures, either of which he could do well before this

seizure. His tongue is perfectly clear for short intervals and then he has trouble in speaking the words he desires to use. Appetite good, walks around, no pain anywhere. Urine highly acid, ps. gr., 1028, no albumin. Diagnosis: embolism middle cerebral, left side. Do we agree on this diagnosis?"

Unfortunately we are unable to speak positively from lack of a clear conception of physical conditions but feel inclined to agree with your diagnosis: embolism middle cerebral artery, left side. The prognosis must depend upon the condition of the man's vessels. If sclerosis is at all marked we may expect future and more severe trouble. We should be inclined to give this man salines, the "trinity" (aconitine, digitalin, and strychnine) morning, noon and night, with stilling in gr. 1-3, iridin gr. 1-3, xanthoxyl in gr. 1-3 midway between meals to increase waste, adding probably, three granules of asparagin. Let him take this with half a pint of sour milk or buttermilk, then push arsenic iodide gr. 1-67 after each meal and at bedtime for two or three weeks to secure absorption. Elimination, renal, intestinal and dermal, are the main things; then we must positively secure equalized circulation and cardiac "tone." Salt sponge-baths followed by brisk friction will benefit the patient. His age of course is against him. Let us know how the case progresses and if at any time you feel disposed to make a thorough physical examination and report findings we shall be only too glad to suggest further.

QUERY 5301.—"Bromidrosis." G. A. T., Kentucky, wants something to "kill" the offensive odors of armpits and feet. Keep the parts clean with a good antiseptic soap, dry carefully and dust on some good absorbent and antiseptic powder, as the following: Boric acid, drs. 3; tannoform, drs. 3; powdered talcum, enough to make ozs. 3. Or try tannoform, drs. 3; salicylic acid, dr. 1; powdered talcum, to make ozs. 3. Go through this process once daily during hot weather. Formalin is a most useful remedy in these conditions: one dram of the 40-percent solution to the quart of water.



PHENOL POISONING.—D'Hotel has saved patients poisoned by phenol by washing out the stomach repeatedly.—*J. A. M. A.*

VERATRINE IN ECLAMPSIA.—Should eclampsia occur give veratrine by the mouth or hypodermically until the pulse comes down to 60 or 70.—*Marrs, Merck's Archives.*

SCOPOLAMINE AND HYOSCINE.—*Physicians Drug News*, for April, lists hyoscine hydrochloride, five grains, two dollars; scopolamine hydrobromide, five grains, one dollar and five cents.

A TOBACCO "CURE."—The inner bark of the tulip tree is said to render unpleasant, in some unexplained way, the taste of tobacco, in any form.—*Henkel, Maryland Medical Journal.*

CATARRH.—The subtle influence of aconitine upon the vasomotor nerves, is probably responsible for the restoration to healthy activity of the bronchial mucous cells.—*C. M. Smith, Merck's Archives.*

DEATH FROM CHLOROFORM.—A man died at Youngstown, Ohio, in a dentist's office. Chloroform had been administered, and the seventh tooth was about to be drawn, when he expired.—*Dental Digest.*

EXPERIENCE IN ANESTHESIA.—A writer in *The Lancet* says many instances have come to his knowledge where the want of special experience in a self-constituted anesthetist has led to inconvenience and even disaster.

CACTUS.—If at any time there is a tendency to nervous hyperesthesia with an excitable action of the heart I have found cactus to aggravate the symptoms, and have advised against its use.—*Ellingwood's Therapeutist.*

DEATH IN DENTIST'S CHAIR.—In Omaha, Neb., a woman died in the dentist's chair. She had taken chloroform and two teeth had been extracted, when an acute spasm of the heart caused her death.—*Dental Digest.*

CEREUS GRANDIFLORUS.—This plant does well in this state, when carefully cultivated. A very valuable heart tonic, with the properties of digitalin. Culture well worthy a trial.—Quoted from C. R. Nichols, *Pacific Pharmacist.*

A STRONG COMBINATION.—*The Carolina and Charlotte Medical Journals* have wisely combined, and still more wisely have combined their editorial forces, thus retaining the full strength of both journals in the combination.

ANESTHESIA.—I cannot avoid the conclusion that no inconsiderable number of deaths attributed to post-operative shock, are instances of anesthetic deaths, due to a preoccupied operator and an ignorant or careless anesthetist.—*John B. Roberts.*

ECLAMPSIA.—In *Merck's Archives* for November, R. J. Smith contributes a valuable paper on "Eclampsia." In this he says the one drug which seems to be universally successful is veratrine. Enough was given to bring the pulse to 90 or below and keep it there.

SUDDEN DEATH.—In *The Lancet* of Feb. 22 Freyberger contributes an analysis of 74 cases of sudden death while under the influence of anesthetics. The same paper contains a discussion at the Society of Anesthetists, on Status Lymphaticus and its Relations to Anesthesia.

CACTUS IN TYPHOID.—Burnett says that in a case of typhoid fever, where he thought cactus indicated, he found that there was a rise of temperature each time after the remedy was given. He was inclined to think that the remedy induced this condition.—*Ellingwood's Therapeutist.*

MEDICAL BIOGRAPHY.—*The Medical Fortnightly* has opened a department of Medical Biography, conducted by Dr. W. B. Outten. The first instalment is very interesting even to those who are not personally acquainted with the gentlemen whose biographies are considered.

SMOKING HABIT.—It is claimed that the smoking habit may be cured by rinsing the mouth with a solution of silver nitrate 1-4 of 1 percent. This overcomes the desire for tobacco, because it causes a change in the sense of taste which renders the smoke repugnant.—*Medical Council.*

ATOXYL FOR SYPHILIS.—Experiments made in Germany seem to indicate that in atoxyl we have a remarkably effective remedy against syphilis; one that may possibly prove a rival to mercury, and be applicable in those exceptional cases in which mercury cannot be applied effectively.

HEATING CHLOROFORM.—Chloroform having been found to be almost entirely without danger in the tropics, Haun tried anesthesia with chloroform warmed to 102°F. He found the anesthesia better induced, with no bad effects, in eight cases.—*Critic and Guide*

VISIT FROM A FLORIDA FRIEND.—Dr. C. L. Randall of Altamonte Spring, Florida, but formerly of Irving Park, Chicago, was in the city recently and gave us a call, giving us some samples of the water of Tonywatha Spring, of which he is the owner. The Spring seems to be one of great promise.

IPECACUANHA.—SPRUE.—A recent writer says that in all cases of sprue he has recently given ipecacuanha with surprising benefit. He gives 20 grains a day for two, three or more days, stopping when the stools become thin, greenish and devoid of odor. He gives ample food, such as mutton, eggs, fruits, etc.

TREATING THE MORPHINE HABIT.—Haines substitutes half the daily dose with an equal quantity of dionin, gradually reducing the morphine and increasing the dionin, so that at the end of ten days dionin alone is given. This is then continued for three days and then gradually reduced.—*Merck's Archives*.

CAN IT BE POSSIBLE?—Referring to the institution of *The California State Medical Journal*, a writer in *The Pacific Medical Journal* says: "This journal was given origin through a resolution providing in effect for a journal on broad, scientific principles, dignified, courteous, ethical and unbiased."—Good Lord!

ALKALINE BOTTLES.—Gruedler has recently called attention to the danger of using bottles made of alkaline glass for alkaloidal solutions. All alkaloids are apt to be precipitated by the alkali in such glass. It is much better to keep the alkaloids in granules and only dissolve them when they are to be administered.

STRYCHNINE IN COLLAPSE.—Troisfontaines says that the reason strychnine does not succeed oftener in the treatment of cardiac collapse is because we do not give enough of it. He begins with 1-20 of a grain, which he does not hesitate to increase to 1-6 grain subcutaneously, repeating this several times in twenty-four hours.—*Merck's Archives*.

HOW TO TAKE COLD.—*The Toledo Medical and Surgical Reporter* for April contains an editorial entitled "How to Take Cold," which is alone worth a year's subscription, for its concentrated, cold common sense. If we were still in active practice, we should have that editorial reprinted and keep on our office table for our patients' benefit.

SUBMISSION TO DICTATION.—Medical men are called upon to exercise too wide a discretion in the course of their daily dealings with the world, to render it reasonable to expect them as a body to submit to dictation; and nothing could be more disastrous than the existence of a brief, that they speak and act under the guidance of some profes-

sional or irresponsible tribunal.—*Lancet*. We were not aware that *The Lancet* was so familiar with the state of matters in the American medical profession.

ALBRIGHT'S OFFICE PRACTITIONER had scarcely swallowed the *Electro-Therapeutist*, when we hear that *The International Journal of Therapy* has followed the same course and is now merged into Albright's journal. Like Drs. Chas. F. and J. J. Taylor, Dr. Albright has shown that even in Philadelphia a live man can make a new medical journal a success.

DANGER FROM ETHER.—To saturate a patient for an hour with ether, or possibly two hours at a time, is not without its own special risk, but these risks become considerably augmented when, as is often the case, these patients, still deeply anesthetized, are put back to bed upon their backs, with deep, moist breathing, insensitive cornea and dusky color.—Hewett, *Lancet*.

VERATRUM VIRIDE.—H. C. Wood, Jr., says that veratrum viride is not a vasodilator, the reduction in blood-pressure being due to slowing of the pulse-rate. The chief constituent, protoveratrine, is a heart stimulant. Thus the veratrum viride is a stimulant rather than sedative. If it does good in eclampsia it is by bleeding the patient into his own vessels.—*Medical Record*.

CHLOROFORM.—Certainly no one would be excusable if a fatality occurred from anesthetizing with cold chloroform in this climate, during the winter months, when he could so easily have doubled the value of his anesthetic, and increased the limits of safety, by simply placing the bottle in a vessel of hot water.—Gwathmey.—*New York State Journal of Medicine*.

EPITHELIOMA.—We have had the opportunity to see the good work Dr. Pusey of this city is doing in the treatment of epithelioma with the x-ray. The patient was a leading physician of Little Rock, Ark., with an epithelioma on the side of his nose. Dr. Pusey had applied the x-ray to this for some time, and the growth was pronounced cured at the time the patient visited our office.

ABORTION CAUSED BY THE X-RAY.—Fraenkel reports a case in which abortion was intentionally induced in a consumptive woman by subjecting her to 25 x-ray exposures, the ovaries and thyroid gland being exposed from five to ten minutes on successive days, adjoining regions being carefully protected. In three other patients exposure of the thyroid to the rays produced menstrual irregularity.—*American Journal of Surgery*.

TUBERCULOSIS.—Carroll Chase, discussing the treatment of pulmonary tuberculosis in *Merck's Archives*, says: "Intestinal antiseptics is important because of the much larger amount of nutriment that can be absorbed from intestines in fairly normal condition, compared with those where excessive fermentation or even putrefaction is taking place." For night sweats he prefers atropine, but if this tightens the cough unendurably he gives agaricin or picrotoxin, alone or together.

REWARD OFFERED!—It is a curious point that the human being we occasionally meet, whose regular habit it is to have an easy, quick stool twice a day, is certain to enjoy the best of health; whereas the constipated individual—well, we are all familiar with his *pleasant* disposition.—*Boston Medical and Surgical Journal*. (Five hundred dollars' reward to any person who will enable us to administer a pound can of saline laxative to Editor Simmons.)

A VISIT TO JAVA.—Even in the hurry and stress of our strenuous life, we simply have to take time to read Dr. Eccles' description of his visit to Java, in *The Medical Fortnightly* of April 10. What a delightful trip this of Eccles' has been. We owe him a debt of gratitude that he has not kept the pleasure to himself, but has permitted us to share it in his series of papers. Dr. Eccles is one of those men who, having eyes, uses them, and having a tongue, speaks of what he has seen.

COCAINE AND MORPHINE.—Lebord shows that a fatal dose of cocaine does not result in death when administered after the injection of morphine, but in severe cocaine poisoning, when the effects have been fully developed, morphine will not antidote. Atropine, chloral and chloroform decrease the intensity of the convulsions in cocaine poisoning; morphine stimulates or decreases them, being uncertain. Chloral combats the vasoconstrictor effects of cocaine but increases the toxic effect.

LUMBAR ANESTHESIA.—In *The Lancet* of March 21 there is an editorial discussing at length Lumbar Anesthesia. One significant sentence we transcribe: "For one thing appears quite certain, this, that good results cannot be obtained with this method of anesthesia except by those who have acquired considerable experience in the matter." This cuts out spinal anesthesia, as it does the volatile anesthetics, for use in the vast field of emergency practice, where the H-M-C has won its greatest laurels.

A REORGANIZED STAFF.—The editorial staff of *The Atlanta Journal-Record of Medicine* has been reorganized; and now includes E. G. Balingier as editor, with three associates and thirteen collaborators, from among the most prominent men of the profession in that city. Among these we note the name of Dr. Westmoreland, a name which has long been connected with the journal in the days of its success. We sincerely hope that the profession of the great State of Georgia will stand by the journal and make it worthy of their state.

SCOPOLAMINE FOR CHOREA.—Zelenski has recently suggested the application of scopolamine as a remedy for chorea. In cases of chorea major the incessant jactitation which wears out the patient and may even cause his death through lack of sleep, may be easily quieted by the hypodermic application of a very small dose of the H-M-C anesthetic. This seems to us preferable to drenching the patient with chloral, or giving him maximum doses of glonoïn or amyl nitrite, each of which has been suggested, and praised. Zelenski presented a case at the *Société de Neurologie* of Paris, in which he ascribed his successful treatment to the use of scopolamine hydrobromide, 2-10 to

5-10 of a milligram daily, given subcutaneously. He remarked the quick subsidence of the choreic movements, and added that he had tried this remedy in four cases with uniform success. In one of these antipyrin, arsenic and chloral had failed.

TEACHERS OF PEDIATRICS.—The Association of American Teachers of Diseases of Children will hold its annual meeting in Chicago, June 1 next, at the Great Northern Hotel. Only teachers of this branch in medical colleges, or members of hospital or dispensary staffs engaged in this class of work, are eligible for membership. Dr. Samuel W. Kelley of Cleveland is the president of the association, while Dr. Robert A. Black of Chicago is secretary pro tem., replacing Dr. John C. Cook, deceased. An interesting program has been prepared.

PNEUMONIA.—In *The Canadian Journal of Medicine and Surgery*, Geo. M. Aylesworth contributes a thoughtful article on "The Mental or Nervous Hypothesis in Internal Medication"—Illustrated by the use of Aconite and Veratrum viride in Pneumonitis." Dr. Aylesworth's contention is that veratrum viride is indicated in sthenic, aconite in asthenic, forms of this disease, and that the two are never indicated together. The article is so good that we advise our readers to send for a copy of the journal containing it, and give the paper special attention. It is one of the most important papers on this topic we have ever perused. Dr. Aylesworth is a thinker; he never puts in print an article which is not deserving of this thoughtful attention we are now suggesting.

GELSEMININE.—Blair speaks of Merck's gelseminine as an antispasmodic and antineuralgic. It is a good physiologic antidote for strychnine poison. It has a selective action upon the central nerve system. By inhibiting nerve action it diminishes the supply of blood to the brain and spinal cord. It is a most valuable remedy for spinal erethism and cerebral congestion, gives good results in acute fevers of the sthenic type, and may often take the place of aconitine. Headaches of the hyperemic type are benefited by gelseminine. It is an excellent nerve sedative under many conditions. Acute colds, ovarian neuralgia, uterine colic, facial neuralgia, lumbago, women's backaches, and functional heart affections are all benefited by gelseminine.—*Merck's Archives*.

PLATFORM OF THE REFORMERS.—(1) Independence of the individual physician; (2) Right of the states paramount; (3) The editor of the Journal to be its editor solely; (4) No long nor life-tenure for Trustees; (5) Lessening of centralization of power in Trustees; (6) Plain, intelligible, definite financial reports; (7) A chance for a committee of Reformers to examine the books; (8) Suppression of advertising in the Journal; (9) By elimination of advertising pages and other extraneous matter making the Journal more popular, increasing correspondingly its subscription, and (10) Reducing membership dues and subscription price; (11) Publication of names of cash beneficiaries; (12) Publication of names of cash-paid contributors; (13) Publicity of plans; (14) Abandonment of

manufacturing business; (15) Independence of every Reformer in the reform movement; (16) No officer or financial beneficiary shall belong to, speak or vote in the House of Delegates except that he may speak on request.—Editor *Pacific Medical Journal*.

■ We heartily concur in everything Dr. Coe has said and the second offered by Dr. Winslow Anderson. The Platform of the Reformers is ideal. Right will prevail in the end, but we do not care for the end to be too long in the dim distant future.—*Gaillard's Southern Med.*

PRESCRIPTION DIFFICULTIES.—In *The Western Druggist* F. M. Appel says that from a careful study of his own prescription file he has come to the conclusion, that an ever-increasing number of medical men are desirous of limiting the use of their prescription to the patients for whom they are written, and if possible, to the conditions existing at the time the patient was seen. There is not the slightest shadow of a doubt that Mr. Appel is perfectly correct. He seeks to meet the wishes of the physician in this respect by putting this sticker upon the compound: "Your physician directs that this prescription is not to be renewed without his consent." This is all right and very commendable.

STRYCHNINE IN LARGE DOSES.—Troisfontaines advises that strychnine be employed in much larger doses than are usually given. He gives from 1-12 to 1-6 grain hypodermically as indicated, repeating up to a total amount of 3-10 to 6-10 grain in twenty-four hours. From such doses he has never seen untoward effects. He uses strychnine in diabetes mellitus, certain paralyses, sunstroke, psoriasis, pulmonary tuberculosis, surgical shock, acute and chronic alcoholism, collapse, and nervous depression which has occurred in infectious disease. In the last type he gives 1-2 to 3-10 grain daily for four to eight days, without toxic symptoms. The drug is not cumulative. In fixing dosage the patient's weight and condition of the liver and kidneys should be taken into account.

CHOLECYSTITIS.—In *The Alabama Medical Journal*, Robertson writes of cholecystitis and its medical treatment. His knowledge of the subject may be estimated by the fact that his only means of relieving the pain is a hypodermic of morphine, with perhaps a few whiffs of chloroform. He evidently has never heard of morphine and atropine even, much less of hyoscine, morphine and cactin. In the intervals he suggests the sulphate and phosphate of sodium. Olive oil and turpentine are now looked upon with little favor. Hot applications are suggested. He has never heard of succinate of sodium. The only thing he knows for the extreme itching is a dusting powder or soothing lotion. Pilocarpine has never been suggested to him, and yet he thinks he is writing upon the medicinal treatment of this disease!

FOLIA THERAPEUTICA.—The fourth number of this quarterly is the finest that has yet appeared, and closes the year with a brilliant promise of usefulness. Every paper in this number is excellent, two of them so much so that we have made liberal abstracts from them which will appear in another department of this journal. We take this

publication as one of the most pronounced indications that has yet appeared, of the revival of interest in drug therapeutics; and that along the most desirable lines, leading the way to the scientific basis we have so ardently desired and advocated. We are gratified to learn that the reception of the journal by the medical profession has been such as to fully satisfy the expectations of the publisher. The medical public may be trusted; it is always willing to pay its money for value received.

■ **INTERSTATE DRUG BUSINESS.**—We learn from *The Pacific Pharmacist* that the Secretary of Agriculture has decided that if a compounder, druggist, physician or their agents, by mail, express, freight or otherwise, should ship a package from one state to another, the label is required to bear the information called for by Congress; that is, as regards alcohol, opiates, cocaine, etc. If, however, the patient, a member of his household, or the physician himself, carries such a package across the State line and it is not subject to sale, such package need not be marked to conform with the law. This applies to drugs which are sent from one State to another for the treatment of drug addiction. If they contain morphine, they must so state upon the label, even although there may be an objection to allowing the patient to know that he is being thus swindled.

THE PHARMACIST'S FUNCTION.—In *The Northwestern Druggist*, Puckner says that the success of the pharmacist must depend on his ability of selling goods, etc., his skill in making pills, ointments, etc., and on his grasp of chemistry whereby he is able to discern and correct prescription incompatibilities, and aid and advise the physician in prescribing remedies and protect and instruct the public. As this comes from a prominent member of the Council on Chemistry and Pharmacy, it is just as well that the physician who prescribes and does not dispense should know exactly what he is up against. If this suits him there is nothing more to be said. Nevertheless, in the same issue, on another page, we learn that a druggist of Fairfax, S. Dak., died from an overdose of cocaine taken in mistake for codeine. We do not care to have that sort of druggists direct, advise or instruct us.

SUPPORT YOUR LOCAL JOURNAL.—We have repeatedly called the attention of our readers to the importance of supporting their local journal. No matter whether you like it or not, the profession of your city will be judged by your local journal. It should have your best support; not only in subscribing but in furnishing it your very best material. This matter comes back to us, on examining the October number of *The Journal-Record of Medicine*, of Atlanta, Ga. This number contains three valuable papers, by Atlanta physicians, each of which is interesting to any physician, and each of which is a credit to the journal and the community. We desire especially to call attention to the paper on "Intelligence of Action," by Dr. Lindorm, one of the most thoughtful papers we have seen in any medical journal for years. We congratulate our Atlanta contemporary and trust it will long continue to represent so worthily the medical profession of its home state.